



Annual Report and Accounts 2005

I feel privileged to be leading colleagues who ensure that Birmingham, this intellectual powerhouse, continues to challenge, discover and make an impact in our city, region and the wider world.

Professor Michael Sterling, Vice-Chancellor



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Welcome

from the Vice-Chancellor



This was the year that the University challenged its students, staff and stakeholders with the question: '*100 years of thinking – what will you add?*' 2005 also saw the publication of a strategic framework for the next five years, again capitalising on our tradition of enquiry, discovery and action as a touchstone for the future direction of the University. This leads me to introduce this Annual Report and Accounts by thinking about what the year added to this institution's heritage; what challenges were addressed; and what we take forward as we steer the University's development.

A particular strength that is apparent when reading this report is the quality and diversity of research. While our innovation and our collaborative way of working have attracted attention far beyond our campuses, the investment made this year in facilities and expert staff strengthens our foundations as we prepare for the Research Assessment Exercise 2008. As the accounts show, our income from funding councils and from research grants has increased again this year (see page 52).

Once again, the overall surplus position has improved on last year, which, along with paying off long-term debts, allows us to continue our planned investment in state-of-the-art buildings, facilities and our estate. This year saw the opening of the Business School's new home in University House; the new and improved Shackleton on the Vale; and set the wheels in motion for an impressive new Sport and Exercise Sciences building and a new Mason Hall, amongst many other capital projects.

Improved efficiency is not only making a difference to the University accounts. Birmingham is one of 20 universities signed up to the Carbon Trust's Higher Education Carbon Management Programme. Interdisciplinary research work on climate change and alternative fuels will feed in to changes to our use of energy to see reductions in carbon emissions and in our bills as gas, electricity and oil prices rise.

Policy and practice outside our control presented challenges during the year. Some £175,000 was distributed to reimburse many of our international students for a £95 increase in the costs of postal visa extensions, to ensure that such students were not deterred from coming overseas to study. We also outlined the Birmingham Scholarship and Grant Scheme as part of the sector's preparation for 2006 and tuition fees – this was hailed by the *Sunday Times* as containing 'some of the clearest criteria for financial help anywhere' (see page 13). Our students were also particularly positive about the quality of teaching we offer and rated our IT facilities highly in the first National Student Survey.

Overall, this year has consolidated our links within our city and further afield. The designation of Birmingham as a 'centre of science expertise' by Gordon Brown will mean a leading role for the University as investment in science and technology is increased. Enormous developments are underway around us; for example, the new hospital will boost our Medical School's links, and the Science Park redevelopment of the Pebble Mill site is moving forward apace, as is our ongoing partnership with the BBC. The Central Technology Belt developments continue, with added pertinence following the changes at MG Rover in Longbridge.

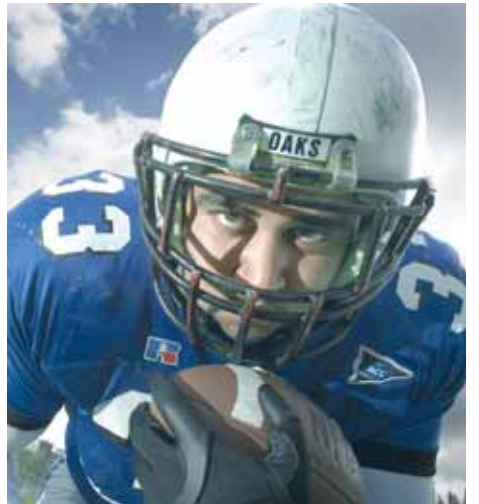
It is the people of this University who make all this happen and this report goes some way to documenting the outstanding achievements of our staff and students. I feel privileged to be leading colleagues who ensure that this intellectual powerhouse continues to challenge, discover and make an impact in our city, region and the wider world.

Professor Michael Sterling
Vice-Chancellor and Principal

The year as it happened

October 2004 – September 2005

From breakthroughs in cancer research and nanotechnology, to sporting triumphs and a unique creative partnership with the BBC, 2004 – 05 has been a year to remember.



October 2004

In brief

- New helicopter simulator on the horizon
- A labour of love for city partnerships
- Buttons draw blanks in Coventry
- Developing a tiny 'treacleometer'
- Birmingham tops UK MBA league
- New plays take centre stage in Stratford

A labour of love for city partnerships



Amaya is pictured here with her mother Alison and actress Stella Williams (right)

Proud parents Alison and Alton Fuller and their daughter Amaya are set to benefit from REP's Children – an arts project involving the University and the Birmingham Repertory Theatre.

Hundreds of babies born at City and Sandwell Hospitals during October 2004 will receive a free theatre experience every year for ten years.

Dr Jane Coad of the School of Health Sciences will be evaluating the impact the project has on the babies' development skills.

New helicopter simulator on the horizon

University engineers are advising the RAF on building a simulator for helicopter crew. The simulator will help helicopter air crew students practise how to position an aircraft during rescue operations, while retrieving objects and survivors from difficult locations and in poor conditions.

The simulator will replicate the role of the winch operator who, once over target, flies the helicopter using a small joystick. Care must be taken as any sudden movements can make the helicopter swing like a pendulum.

To prepare for the task ahead, Professor Bob Stone from the Department of Electronic, Electrical and Computer Engineering has flown with 203(R) Squadron at RAF St Mawgan, Cornwall,



observing the activities of rear-door crew of Sea King helicopters during a typical training flight over land, cliffs and sea.

'The simulator design has to take into account many different aspects of the operation,' said Professor Stone. 'For example, the visual cues used to position the aircraft; the bulky survival gear and helmets worn by the crew which constrain movement and restrict their visual field; and the posture they have to assume due to the harness. The position of the joystick and winch control will also have to be reproduced accurately.'

Developing a tiny 'treacleometer'

Researchers at the School of Engineering have won £1.4 million funding from the Department of Trade and Industry to develop a new generation of micro rheometers to help measure the viscosity or 'feel' of liquid-based products.

The tiny device (built on the scale of a human hair) will use micromachined sensors to measure the force exerted on a liquid, an important measurement of a wide range of

products that is currently time-consuming and expensive. The new 'treacleometer' device will be small enough to enable the whole measurement to be made in a small hand-held device. The final system will give manufacturing partners ICI and Unilever access to a new generation of instrumentation that will allow the rapid and cost-effective development and testing of a wide range of products, from health care to food products.

New plays take centre stage in Stratford



Playwrights, producers and academics took their talents to the Royal Shakespeare Theatre to examine the relationship between new plays and big stages.

The Big Ideas one-day symposium: *New Plays and Big Stages – Do the Two Add Up?* was a



collaboration between Birmingham's Department of Drama and Theatre Arts' MPhil(B) in Playwriting Studies, the Royal Shakespeare Company and the Monsterists group of playwrights.

Birmingham tops UK MBA league



Birmingham Business School was rated the leading provider of MBA programmes in the UK by *The Economist* Intelligence Unit's ranking of the world's 100 best full-time MBA programmes. The ranking is based on 21,000 students' ratings of their MBA, focusing on the elements they consider essential, including opening new career opportunities; furthering career prospects; personal development and educational experience; increase in salary and the potential to network.

Birmingham Business School climbed six places from the previous year to rank as the number one provider in the UK, while its global rating rose 13 places to number 25.

Buttons draw blanks in Coventry



Evidence of 14th-century button manufacture was discovered by Birmingham archaeologists in Upper Well Street, Coventry. Excavation of medieval rubbish pits on the site produced a large amount of pottery and bone finds, but archaeologists were most interested in button blanks made of bone. These would probably have been used for practical rather than decorative purposes.

Findings Officer Erica Macey-Bracken explained: 'These buttons appear to have been punched out using a stamp. They could have been decorated or covered with cloth, as Coventry was exporting cloth to Europe in large quantities at that time.'

October highlight

Income from research grants and contracts in 2004–05 was over £73 million; an increase of more than £3.4 million over the previous year.

[Learn more](#)
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November 2004

In brief

- Magnetic milestone in children's brain tumour treatment
- National leaders in widening access
- Multiple medal haul for University badminton team
- Engineering forges Chinese links

Magnetic milestone in children's brain tumour treatment

New facilities opened in November that will make a difference to children's lives as well as providing a UK first for high-tech science. Scientists and clinicians at the University and Birmingham Children's Hospital are pioneering the diagnosis and treatment of children's brain tumours using the most powerful and stable magnetic instruments in the world. Alongside advanced head scans, scientists are using superconducting magnets to analyse samples from children's tumours – improving diagnosis and treatment.

This work is boosted by the Medical School's installation of the UK's first 900 MHz magnetic resonance spectrometer within the Henry Wellcome Building for Biomolecular NMR Spectroscopy. Spectrometers use powerful magnetic fields that allow researchers to look in minute detail at a sample and the 900 MHz is 20 times stronger than hospital imaging magnets. The relationships between atoms

and molecules can be examined to point to the types of effects drug treatments could have. This technology could lead to more efficient treatments on an individual basis.

Professor Michael Overduin is Executive Director of Birmingham's national NMR facility and Professor of Structural Biology. He explained: *'Using these powerful magnets we can image and diagnose the root causes of cancer and other diseases. They also help us understand basic biology, for example the mechanisms of proteins that make cells grow and divide. This benefits patients through diagnosis and, importantly, assists drug development – pharmaceutical companies will be carrying out research here alongside University and hospital scientists.'*

The £8 million building project was funded by the Wellcome Trust and the Higher Education Funding Council for England.



Above: the 900 MHz magnetic resonance spectrometer which is five metres tall and cost £3.5 million
Right: The Smyth family



This science could make a direct impact on the lives of families such as the Smyth family from Northfield, Birmingham. Tim Smyth, aged 12, had crippling headaches and an eye test showed swelling behind the brain, pointing to a tumour. A scan showed that a tumour was indeed present but surgery was needed to confirm the type was a germinoma. The location in the midline of the brain meant surgery was difficult and potentially dangerous. However, NMR spectroscopy could have analysed just a small sample, and identified the germinoma. Radiotherapy is known to cure almost all of these tumours, so surgery could have been avoided. In Tim's case his tumour had disappeared six months later and his only remaining symptom is some double vision.



Engineering forges Chinese links

The University's School of Engineering has entered into a collaboration with the Harbin Institute of Technology (HIT), one of the foremost universities for engineering in China. Our two universities will be able to exchange students at undergraduate and postgraduate level and there will also be research collaborations. HIT is involved in the Chinese space programme and researchers from both institutions will work together on advanced materials in aerospace research.

National leaders in widening access

Birmingham is leading the country's top higher education institutions when it comes to increasing its number of students from state schools, a national report revealed.

A report by the Sutton Trust, which helps provide educational opportunities for able youngsters from non-privileged backgrounds, showed there has been a rapid rise in state school entries to the top 13 universities over the past five years. Birmingham has seen the joint largest increase (9%) in its representation of state school students with high qualifications. The University now has the second highest number of students from state schools – 79%.

Sandra Cooke, Head of the Widening Participation Unit at Birmingham, said: *'Birmingham is committed to widening access and encouraging potential in students from all backgrounds. These excellent figures show that students can achieve their goal of an education at a top university, regardless of their background. This is great news for us and great news for higher education in general.'*

Multiple medal haul for University badminton team



The University of Birmingham Badminton Club netted seven medals – two gold, three silver, two bronze – at the British Universities Sports Association (BUSA) Individual Championships in Nottingham, including romping home with both the men's and women's singles titles.

Men's Individual Champion Gert Kunka claimed his third successive title, while in the women's singles competition, Elena Johnson's aggressive style paid off when she defeated her own team captain from Birmingham, Mary le Druillenec, in the final, winning in two straight sets.

November highlight

Birmingham is leading the country's top higher education institutions when it comes to increasing its number of students from state schools.

December 2004

In brief

- Birmingham's bugs banquet
- From Bangkok's Grand Palace to Birmingham's Great Hall
- Poetry competition winner goes underground
- University journey starts with community outreach
- Shackleton sparkles at launch party
- White Christmas dreams came true

Birmingham's bugs banquet

A Biosciences Christmas lecture gave local primary school children a taste for science.

Over two days 200 ten-year-olds investigated how caterpillars select their food using their senses of smell, sight, touch and taste. They performed practical experiments where they observed which of the senses caterpillars need when searching for food, and used the skills of a professional scientist such as asking questions, observing, recording and analysing data.



From Bangkok's Grand Palace to Birmingham's Great Hall

The first Thai monk to obtain a PhD degree at a British university received his accolade in the December degree congregations. Phramaha Laow Panyasiri Pracharart collected his PhD in Theology; the result of six years of studying the British practice of Buddhism. Phramaha Laow also combined his studies with duties as the University's Buddhist chaplain.

He is pictured with honorary graduand the Most Reverend Vincent Gerard Nichols, Archbishop of Birmingham.

In the December Degree Congregations the University also conferred honorary degrees upon:

- **Baroness Nicholson of Winterbourne:** MEP, Life Peer and World Health Organisation Envoy for health, peace and development

- **Barry Cleverdon, OBE:** former Chief Executive of the NEC Group

- **Lynne Morris:** Principal of Joseph Chamberlain Sixth Form College in Birmingham

- **Sarinda Singh Sahota:** Chair of the Institute of Asian Business, Chair of Dudley Road Traders Association and Deputy Chair of the West Midlands Business Council

- **Sir Thomas Allen, CBE:** acclaimed opera singer

Shackleton sparkles at launch party



Local comedian and honorary graduate Jasper Carrott performed the official opening duties, as Shackleton student housing development was launched as the newly re-developed 'Heart of the Vale'. Sixty staff mingled with over 300 guests including colleagues, students, local business contacts and even fairies in a spectacular winter-themed party.

Originally built in the 1960s as a traditional catered hall of residence, Shackleton was transformed over 12 months into a first-class facility that will appeal to today's student market. The £15.5 million scheme has created 340 single en suite rooms arranged into self-catered flats and 15 flats for postgraduate students. Catering is provided for all 3,000 students who live on the lakeside Vale site.



Above: Jasper Carrott unveiling the plaque at Shackleton

University journey starts with community outreach

A project linking the University with community organisations in order to widen access to higher education had its pilot this year. Skills in the Community Outreach Resource (SCOR) programme is funded by the European Social Fund and based in the University's Centre for Lifelong Learning. The project links adult learners with support in local community centres.

The SCOR programme aims to provide learning opportunities for men and women who want to develop their skills and participate in higher education. Working in partnership with local communities, it has provided an introduction to university education for 50 local people. They worked on a course to build up learning skills, styles and preferences to prepare for continuing education.

White Christmas dreams came true

Scientists at the University correctly predicted a white Christmas across Birmingham and the West Midlands.

John Kings, Meteorologist from the School of Geography, Earth and Environmental Sciences, who operates the University weather facility, predicted snowfall on Christmas Day. While not reaching the memorable quantities of Christmas 1981, sufficient snowflakes fell to fulfil technical requirements.

Poetry competition winner goes underground

A final-year student from the University's School of Humanities won a competition to have his poetry displayed on the London Underground.

Ben Ziman-Bright from Wembley graduated with an upper second-class degree in English this summer. He won the top prize after submitting his poem, *Rhapsody*, to the Young Poets on the Underground competition. To qualify, the poem had to be an unpublished original work of less than 13 lines.

Rhapsody has since been displayed on hundreds of Tube posters, as well as being published in the *New Poems on the Underground* collection. Ben has previously won two poetry competitions and is a former editor of the University's student newspaper, *Redbrick*.

December highlight

The University is investing £80 million over a ten-year period to transform our accommodation stock to meet the needs of today's students.

January 2005

In brief

- Birmingham's £3.7 million boost to mental health training
- Film of University's first graduation ceremony discovered
- More for most able, home and away: £14.8 million pledged to combat student finance fears
- Professional debut for postgraduate composition
- Dental labs wide open

Birmingham's £3.7 million boost to mental health training

January saw the announcement of a £3.7 million award from the Higher Education Funding Council for England to create a teaching and learning centre dedicated to improving the lives of people with mental health problems.

The Centre of Excellence in Interdisciplinary Teaching and Learning in Mental Health will help develop the NHS mental health workforce by delivering interdisciplinary mental health teaching and learning. The Centre will also unite academics from across the University and professionals from the higher education, health and social care sectors.

Diane Bailey, Programme Director for Community Mental Health at the University's Institute of Applied Social Studies, said: '*Mental health is a multi-faceted issue and we need to work together to help improve the lives of people with mental health problems in the UK. The mental health community embraces health, social care and education. This is a real opportunity for Birmingham to develop highly influential teaching and research programmes.*'

Film of University's first graduation ceremony discovered

Rare footage featuring the University's first graduation ceremony over 100 years ago was discovered and screened on BBC 2. The series *The Lost World of Mitchell and Kenyon* gave an unrivalled visual account of late Victorian and early Edwardian British life.

The second programme of the series featured moving pictures of the University's first graduation ceremony on Saturday 6 July 1901 at which the Chancellor, Joseph Chamberlain, presided. It also included footage of the University's first women graduates, Caroline Edith Morgan (BSc), Gertrude Elsie May (MA), Margaret Mellard Hawkes (BA) and Anne Jane Marchant (BA).

The *Birmingham Magazine*, the students' magazine at the time, contained a report about the degree procession and its filming, stating: '*The stewards heroically led the way right into the teeth of the cinematograph, in front of the fountain, along the Victoria Square, Paradise Street and Ratcliff Place.*'

The footage was among 800 reels of film discovered by workmen clearing out a derelict shop in Blackburn. University archivist, Philippa Bassett, helped the BBC to identify the people in the film.



More for most able, home and away: £14.8 million pledged to combat student finance fears



The University marked the start of the year in which the first 'tuition fees' students make their choices by announcing the new Birmingham Scholarship Scheme. The innovative scheme will see an initial investment of £14.8 million, rising to £21.9 million over five years. It is designed to ensure that able students are not deterred from applying to Birmingham, one of the UK's most prestigious institutions, simply because of worries over fees.

The scheme is based on an assessment of the student's household income and academic achievement. It also reflects the fact that

students from Birmingham and the West Midlands region are statistically more likely to come from groups generally under-represented in higher education.

The scheme is also directed towards students across the UK whom the University believes may be put off applying because their household income, while modest, nevertheless misses the thresholds for the maximum level of state support.

Students who meet the various necessary criteria are potentially eligible for awards of up to £9,300 for the duration of their studies. The University's calculations, based on previous and current student populations, indicate that over 1,500 students may be eligible under the scheme.

University Vice-Chancellor Professor Michael Sterling said: *'Every calculation shows that a degree from a premier institution such as Birmingham adds considerably to a graduate's lifetime earning potential. This scheme should remove any doubt in candidates' minds. We have over a century's tradition of welcoming high-achieving students from low-income backgrounds. This scheme allows us to recognise the excellence of candidates and their ability to benefit from the highest quality of education, while offering additional support to students from the poorest backgrounds. I believe this is a strong, simple and innovative scheme all round.'*



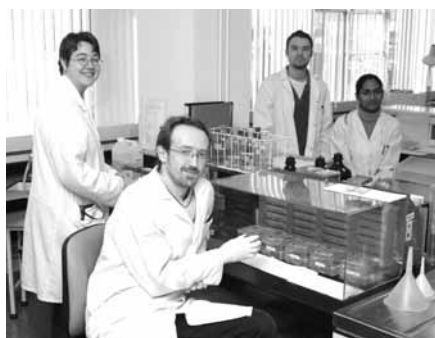
Professional debut for postgraduate composition

Birmingham postgraduate and composer Tom Littlewood saw the first professional world premiere of his work *En Clôture*, performed by Birmingham Contemporary Music Group (BCMG) alongside pieces by Stravinsky, CBSO composer-in-association Julian Anderson and others as part of the University's annual COMPASS prize.

BCMG is the ensemble-in-residence of COMPASS – the University's Centre for Composition and Associated Studies. Each year, final-year undergraduate and postgraduate composers are given the opportunity to write for the ensemble, culminating in a weekend of workshops, from which a composition is selected for public performance.

Tom is studying for an MPhil in Composition and remains active as a composer, having co-founded a contemporary music workshop group.

Dental labs wide open



The Dental School opened its sparkling new laboratories for bioscience research. The facilities will particularly boost the Tissue Injury and Repair theme area which researches the mechanistic basis of periodontal diseases and dental tissue behaviour and regeneration. There are purpose-built areas for cell culture, molecular biology, histology and analytical work, with a postgraduate student base room adjacent to the labs.

January highlight

The innovative Birmingham Scholarship Scheme will see an initial investment of £14.8 million, rising to £21.9 million over five years. The University calculates 1,500 students may be eligible under the scheme.

February 2005

In brief

- Illuminating faith
- Every breath you take: scientists on the case of air pollution
- Seeing the wood or the trees
- New corpus-based research suite
- Lucky seven for University athletes
- Lifesavers ensure national championship trophy is in safe hands
- Three's the magic number

Every breath you take: scientists on the case of air pollution



Researchers from the University's School of Geography, Earth and Environmental Sciences began a study of the air toxins that we are exposed to as we carry out our daily activities.

During the next year, 100 volunteers are each carrying a small briefcase with them for five days. The lightweight case contains a personal air sampler, and volunteers will need to keep a simple diary listing their activities as well as providing a urine sample each day so that comparisons can be made between the level of pollutants in the personal air sampler, and in the various places where the volunteers have been.

Illuminating faith

February saw the launch of an exhibition formed from two impressive collections of Middle Eastern artworks. *Illuminating Faith* celebrated the rich cultural heritage of the Middle East and demonstrated its relevance to communities living in Birmingham.

The University and Birmingham Museums and Art Gallery staged the exhibition, supported by the Heritage Lottery Fund.

In the 1920s Edward Cadbury sponsored Alphonse Mingana to develop a collection of Middle Eastern manuscripts for study at Woodbrooke and the Selly Oak Colleges. Consisting of 3,000 items, about 35 richly decorated texts were selected for display, encompassing religion, literature, science, medicine, astronomy, history and law.

The texts were combined with Palestinian local dress and accessories collected by Wilfred Southall between 1909 and 1936. Donated to BM&AG during the 1980s, the collection has never previously been on display. Ceramics and metalwork originating from Iran, Palestine, Syria, Turkey, Egypt and the Arabian Peninsula completed the exhibition.



Seeing the wood or the trees

Psychologists discovered that the brains of left- and right-handed people are organised differently, with the two groups using opposite sides of the brain for functions such as seeing and perceiving.

Their studies show that left- and right-handers use different parts of the brain to view an image – right-handers use their right hemisphere to focus on the whole of an image, for example a forest, whereas the right hemisphere in left-handers focuses on part of an image, in this instance the trees.

The researchers used a technique called transcranial magnetic stimulation (TMS) which momentarily disrupts brain activity. The researchers applied TMS over either the left or right parietal lobe at the back of the brain while volunteers concentrated on the details of a visual stimulus. Stimulation of the left side of the brain made it harder for right-handers to attend to detail, whilst stimulation of the right side had this effect on left-handers.

New corpus-based research suite

The new Centre for Corpus Research was opened in the School of Humanities.

A corpus is a large collection of written or spoken text stored on a computer. It can be in any language and can be searched to find out how the grammar, words and phrases of that language are used.

The University has a long history of corpus research. In the 1980s, Cobuild, a joint project by the University and Collins publishers, produced the world's first corpus-based dictionary. The corpus used in that project, the Bank of English, has since grown to 500 million words and is still housed at Birmingham.

The Centre for Corpus Research features an advanced computer cluster which will hold corpus data and investigation software with the aim of encouraging corpus-based research throughout the School of Humanities. A grant of £250,000 from the Science Research Investment Fund supports the facility.

Lucky seven for University athletes

University athletes celebrated success after scooping seven medals at the British Universities Sports Association (BUSA) Indoor Athletics Championship. They won one gold, three silver and three bronze medals, placing both men's and women's teams in third place overall for the event.

In the triple jump, Emily Parker secured gold, while Phil Ferdinand, a fourth-year medical student, clinched a silver. Men's and women's relay teams secured silver and bronze medals respectively. Ed Dunford took silver in the shot put. Bronze medals were also awarded to Louise Hazel, who came third in the long jump and Abi Wiltshire, who was third in the 3,000 metres.

Lifesavers ensure national championship trophy is in safe hands

Birmingham students proved to be calm in a crisis, by winning a top lifesaving competition. Birmingham's A team beat 28 other university teams to secure the Student Lifesaving Championship at the national event in Nottingham. After rescuing and administering first aid to 'swimmers' and 'staff' in a mock incident featuring a smoke-filled swimming pool, the team had to compete in a rope relay race and a 50-metre relay race.

Three's the magic number

A Birmingham cross-country team finished first in the national championships for the third consecutive year. The men's B team took victory at the BUSA event in Leeds, with Dan Beier finishing in first place and team-mate Lewis Cadman securing third. Both runners completed the seven-and-a-half-kilometre course in less than 27 minutes.



February highlight

University Sport Birmingham retained its third position in the British Universities Sports Association competition – a tremendous all-round achievement against 147 competing universities in the UK. The Athletic Union involves approximately 2,000 students in 44 sports clubs competing for the University.

March 2005

In brief

- Birmingham Business School celebrates new era in £20 million home
- Lecture theatre legacy for Birmingham surgeon
- Lions roar to victory
- Birmingham makes big strides in tiny science
- Birth of an atom
- Birmingham squash players clean up



Lions roar to victory

The University's American football team celebrated winning a national competition for the first time in its 19-year history. Birmingham University Lions annihilated the Glasgow Tigers by 34 points to 7 in the British Collegiate American Football League final. Head Coach Wayne Hill was named National Coach of the Year, for the second consecutive year.

Birmingham Business School celebrates new era in £20 million home

The country's oldest business school took another step forward on 16 March when Birmingham Business School launched its new £20 million home.

Two hundred business and education leaders came together for the launch of University House, which was formally opened by the University's Chancellor, Sir Dominic Cadbury (pictured far right with the Vice-Chancellor, Professor Michael Sterling).



Professor Jonathan Michie, Director of Birmingham Business School, said: '*University House will strengthen the school's standing as a world-class centre of business education and research, while supporting its wide-ranging partnerships with business and industry across the globe.*'



Birmingham squash players clean up

University sports teams romped home with six medals – two gold and four silver – in March's British Universities Sports Association (BUSA) Indoor Finals, held at the Munrow Sports Centre.

Birmingham squash players achieved the double over local rivals Loughborough, with both the men's first and second teams taking the gold. Mathematical Engineering student Steve Coppinger took the first team title and was named Player of the Final.

Silvers were won by the men's fencing team, the netball second team, and the men's and women's badminton teams.

Lecture theatre legacy for Birmingham surgeon

A Birmingham surgeon's legacy was brought to life for tomorrow's doctors as a new lecture theatre at Birmingham Medical School was named the Leonard Deacon Lecture Theatre. A donation worth £500,000 from his son Andrew Deacon commemorates Mr Leonard Deacon, who died in 2000. He graduated from Birmingham Medical School in 1935 and went on to specialise in obstetrics and gynaecology. In 1954 he became a part-time Senior Clinical Lecturer in the Medical School.

Andrew Deacon said: *'My father is a great role model for tomorrow's doctors as a stalwart of the NHS who inspired others with his gentle, courteous manner with both patients and staff, his sense of duty and the excellence of his surgery.'*

The new £11.7 million student facility complex at the Medical School will provide a 450-seat lecture theatre, small group teaching rooms, and a much-needed common room to create an enhanced teaching and social experience. The development has been supported by the Higher Education Funding Council for England, the NHS, and gifts from alumni and charitable trusts. The largest single trust gift towards the complex has been awarded by the Wolfson Foundation (£1.5 million).



Above from left to right: Andrew Deacon (son), Sarah McLuskie (daughter) and Jill Wilkinson (daughter) look round the lecture theatre named after their father Leonard Deacon, pictured below.



Birmingham makes big strides in tiny science

A pioneering team of University scientists have joined forces to further develop the new industrial revolution of nanotechnology.

The Collaborative Research Network in Nanotechnology (CRNNT) is an elite group of scientists from across the University and external partners who are working together to research and develop the commercial exploitation of nanotechnology – the 'dwarf' technology in which objects are measured not in millimetres or even microns, but nanometres – one thousand millionth of a metre. This cutting-edge science has the potential to make a huge impact on a range of industries, including medicine and food.

Professor Jon Preece, Academic Champion for the Collaborative Research Network in Nanotechnology, said: *'Nanotechnology is an area that requires research and development across the breadth of the science and engineering disciplines. The CRNNT will not only provide a focus for researchers on campus to make new collaborative links from which new discoveries and developments will emerge, but will also allow current and future industrial partners to have a clear view of the depth of research activity on campus.'*

Birth of an atom

In the same month, scientists from the University Nanoscale Science Facility made a breakthrough in manipulating the smallest single molecules and atoms by devising a new technique of molecular dissection which induces the 'birth' of a daughter atom from the parent molecule.

The new method, devised by Professor Richard Palmer and Dr Peter Sloan in the School of Physics and Astronomy, uses the tip of a scanning tunnelling microscope (STM) to inject two electrons into the parent chlorobenzene molecule to induce a dissociation event – the first electron sets the molecule into vibration and the second electron breaks the bond between the parent molecule and daughter chlorine atom.

Professor Richard Palmer explained the significance of the breakthrough, published in the journal *Nature*: *'Through this experiment we are operating at the ultimate level of control over chemistry. What's more, we have a chance to harness this new knowledge of chemical selectivity and apply it to make chemistry more tuneable. With our colleagues in the School of Biosciences, we are now exploring whether this type of process can be exploited in the field of bioremediation, with the goal of breaking down and extracting hazardous contaminants to improve the environment.'*

March highlight

2004–05 saw the University investing some £51 million in new and improved buildings, boosting facilities for Sport and Exercise Sciences, the Medical School, Biosciences, and student accommodation.

Learn more
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April 2005

In brief

- Centenary celebrations honour 'Professor Elgar'
- Circus comes to town
- Shining stars of astronomy gather on campus
- Alumni frenzy
- African-Caribbean teens 'graduate'
- Birmingham puts best foot forward for football cup
- Emma's big noise about science
- Parkinson's disease drugs in study spotlight
- Sex and Shakespeare: the bard bares all

Shining stars of astronomy gather on campus

The city of Birmingham was designated the UK's City of Space 2005–6, with the announcement taking place as the University hosted more than 400 professional astronomers. The Royal Astronomical Society National Astronomy Meeting presented research on a wide range of astronomical topics, including a strong focus on cosmology and high-energy astrophysics.

The University's Astrophysics and Space Research Team has been leading the field in solar and heliospheric physics for the last 40 years. The team specialises in developing purpose-built equipment and data handling/processing systems for various international space missions, working regularly with NASA and the European Space Agency amongst other worldwide partners.

Centenary celebrations honour 'Professor Elgar'

The centenary of Edward Elgar's appointment as the University of Birmingham's first Professor of Music was celebrated with an exhibition, lectures and concerts featuring his work.

The centenary celebrations, organised by the University's Department of Music and the Barber Institute of Fine Arts, began with the opening of the exhibition *Edward Elgar and Birmingham*. Among the artefacts displayed, most of which had not been on public view before, were the fascinating diary of Elgar's wife Alice, which paints a vivid picture of the successes and tribulations of rehearsals and premieres in the city and at the University, alongside the manuscript full score of his ode *The Music Makers*.

The theme of Elgar's inaugural lecture 'A Future for English Music' was explored over two evenings, with Elgar's biographer and *Sunday Telegraph* music critic Michael Kennedy, and Richard Morrison, chief music critic of *The Times*. The lectures were followed by performances by the Endellion Quartet.



Colin Timms, Barber Professor of Music, conducted the University of Birmingham Choir and Symphony Orchestra at Symphony Hall for a programme of English music including one of Elgar's most popular works, *Variations on an Original Theme (Enigma)*. The centenary events concluded with a three-day conference.

Centenary events organiser Dr Matthew Riley said: 'Today Elgar seems part of the fabric of our national life, but in his day he caused heated controversy both with his music and his outspoken remarks as Professor at Birmingham. The exhibition and lectures revealed an unexpected side to this great composer.'

Circus comes to town

One of Edgar Degas' most spectacular paintings was shown in the Midlands for the first time in spring as the centrepiece of a new exhibition at the Barber Institute of Fine Arts. The Impressionist tour de force *Miss La La at the Cirque Fernando* was lent by the National Gallery. It was teamed up with a series of related works, including a preparatory pastel study from the Tate and two important drawings from the Barber Institute's own collection, *Miss La La at the Cirque Fernando* and *The Cirque Fernando – Architectural Study*.



Reunited: Miss La La at the Cirque Fernando is part of a series of small exhibitions in which Barber works are reunited with related compositions from other collections. A series of lectures and *Art Alive!* performances accompanied it.



Alumni frenzy

Joe's Bar played host to 700 alumni, students and guests who returned to the Guild for 'frenzyreunited'. The student favourite 'Frenzy' was re-created especially for alumni, who relished the opportunity to revisit their old haunt. The first night of its kind on campus was a sell-out success.

The event was organised by the Development and Alumni Office to engage with recent graduates as part of a wider programme to involve young alumni.

African-Caribbean teens 'graduate' from university

A group of high-achieving African-Caribbean boys had a taste of university life and successfully completed a year-long learning programme introducing them to higher education.

Twenty young African-Caribbean boys from Birmingham took part in the Saturday morning course, organised by the University's Student Recruitment and Widening Participation team in partnership with voluntary organisations Black Boys Can and Ishango. The programme covered such subjects as personal development, English, Mathematics and Science.

Emma's big noise about science

Emma Carter from the School of Engineering is taking a leading role in persuading young people to study science and technology. She is an advocate in the Engineering and Physical Sciences Research Council's 'Noise' campaign, which aims to change 16 to 19-year-olds' perceptions of science by making these subjects more relevant and accessible. A PhD student in her third year undertaking research at the Automotive Safety Centre, Emma is an enthusiastic advocate of engineering as a university degree and as a career.



Birmingham puts best foot forward for football cup

The University pitches hosted the third Vietnamese Students in the United Kingdom football tournament. The event attracted around 400 spectators, who saw 16 teams of Vietnamese students from universities across the country compete for the coveted trophy. The two-day event, organised by the University's Vietnamese Students' Society, saw London claiming victory, despite the enthusiasm of the Birmingham team.



Parkinson's disease drugs in study spotlight

Researchers at Birmingham are working on the world's largest research study of drug treatments for Parkinson's disease. The PD MED trial is analysing treatment of more than 850 UK patients, to determine which drugs provide the most effective control, with the fewest side effects, for both early and later Parkinson's Disease (PD).

The trial is funded by the NHS and is widely supported by patient groups, the Parkinson's Disease Society and the European Parkinson's Disease Association. Recruitment will continue until November 2006, with targets of 1,000 early disease patients and 500 later disease patients.

Dr Carl Clarke, Clinical Co-ordinator for PD MED says: 'Some PD drugs have been used for 30 years yet we still don't know which is the best. A real-life trial of this size should give us information to decide which make a real difference to people with Parkinson's disease. Our findings will have a large impact on patients, carers and the NHS.'

April highlight

The Barber Institute was awarded five stars in the influential guide *Britain's Best Museums and Galleries*.

Sex and Shakespeare: the bard bares all

Scenes of seduction were the order of the day when students performed some of the more erotic and racy scenes from Shakespeare's plays at the annual Shakespeare Institute Open Day. Seductive scenes from plays including *Measure for Measure* and *A Midsummer Night's Dream* were staged at a fun-packed day held on Shakespeare's birthday weekend at the Institute's impressive 18th-century home.

May 2005

In brief

- Ecstasy and anti-depressants stop cancer cells growing
- Lights, campus, action for BBC Birmingham's television drama village
- Flappers with flair: rare music talent showcased at summer festival
- A fair hearing? Study examines racial bias in the criminal courts
- Deaths of babies in developing countries could be reduced by 30%
- Celebrating the future of sociology
- Hot political debate hits Great Hall

Deaths of babies in developing countries could be reduced by 30%

Researchers at the University of Birmingham and Liaquat Medical University, Pakistan showed that training traditional birth attendants in the developing world could reduce deaths of newborn babies by 30%.

A study involving almost 20,000 women in rural Pakistan showed that perinatal and maternal care could be enormously improved by issuing traditional birth attendants with simple supplies and integrating them into an improved health care system. This was the first large study to assess the impact of training, with results being published in the *New England Journal of Medicine*.

Lead researcher Dr Abdul Hakeem Jokhio said: 'The results of this study will be of interest across the developing world. If traditional birth attendants are trained and integrated into the health care system then babies' lives and possibly mothers' can be saved...I would call upon policy makers to encourage traditional birth attendants and skilled health workers to work together.'

Ecstasy and anti-depressants stop cancer cells growing

Scientists in the Institute for Biomedical Research found cancer-busting properties in Ecstasy and anti-depressant drugs such as Prozac.

Research backed by the Leukaemia Research Fund found over half of lymphoma (cancers of white blood cells) samples studied responded in test tubes to the growth-halting properties of psychotropic drugs. These include amphetamine derivatives such as Ecstasy and weight-loss pills, and also antidepressants such as Prozac (fluoxetine).

These findings offer important leads to possible new treatments of cancer.

Professor John Gordon from Birmingham's Medical School said: 'We think that a range of psychotropic agents that are being used, or sometimes abused, for other reasons will now help us in our fight against all different types of cancer. We are excited that drugs like Prozac are effective in killing these types of cancer cells, as these antidepressants are in such wide circulation and have an impressive safety record.'



The application of Ecstasy is not so straightforward. Co-lead scientist Dr Nick Barnes explained: 'We must stress very strongly that we couldn't use Ecstasy itself as a therapeutic compound, as the dose required to treat the tumour would kill the patient. But perhaps by breaking down the actions of this designer drug we can extract its cancer-killing properties from more general toxic effects associated with its use.'

Flappers with flair: rare music talent showcased at summer festival

The Summer Music Festival showcased the glamorous style of the 1920s when music students performed their fully-staged version of Mozart's *The Marriage of Figaro*.

The annual festival is organised and performed by students from the University's Music Department and provides a showcase for talent and a chance for students to perform to audiences within the University and in the city. This year's line-up included operas at the Barber Institute, symphony concerts, choral works, jazz and big band music in Cannon Hill Park.



Lights, campus, action for BBC Birmingham's television drama village



BBC Birmingham's new television drama village was officially opened by Alan Yentob, BBC Creative Director, and Professor Michael Sterling, Vice-Chancellor of the University.

The television drama village, home to the popular BBC One daytime series *Doctors*, *Dalziel and Pascoe*, *The Afternoon Play* and the new drama shorts series *Brief Encounters* now has its main base at the University's Selly Oak campus. *Doctors* has a purpose-built set at Melville Hall, with the production and post-production staff based at Archibald House. Over 100 staff and artistes are based at the village.

Above: Alan Yentob pictured at the writers' debate held as part of the launch celebrations.

Alan Yentob, BBC Creative Director, said: *'The television drama village represents a new and exciting venture for the BBC, working in partnership with the University of Birmingham. The move allows us to generate new ways of working and provides us with an opportunity to introduce the latest technology for programme-making. The Selly Oak campus has a fantastic range of locations and the students will have access to hands-on media production.'*

Celebrating the future of sociology

A conference marked the re-launch of Birmingham's Department of Sociology. Academics, students and other guests, including renowned sociologists from across the country, took part in a two-day event entitled *The Future of Sociology* at the University's European Research Institute.

The event celebrated Sociology at Birmingham, which is enjoying success, including excellent rankings in the *Guardian* league table; increased staff and student numbers; and world-class research covering a range of areas such as

criminal justice, poverty and social exclusion, GM food, ethnic inequalities, and media and popular culture.

Dr Tahir Abbas, who heads the Department's Centre for the Study of Ethnicity and Culture, said: *'It has never been more important to research and teach in the area of 'race', ethnicity and culture. We firmly believe that the Centre, as part of a strong research and teaching university and in a city with such an immense diversity, is a significant development in relation to this and will remain so in the coming years.'*

A fair hearing? Study examines racial bias in the criminal courts

Major research from the universities of Birmingham and Oxford suggests that minority ethnic defendants have become less likely to perceive racial bias in the criminal courts since compulsory ethnic awareness training for judges and magistrates was introduced a decade ago.

Led by Birmingham's Professor Stephen Shute, the study revealed about one-third of defendants, most of whom were interviewed immediately after their trial and often while waiting transfer to prison, believed they had been unfairly treated in court. However no major differences were found between the proportions of white, black African-Caribbean or South Asian defendants.

Hot political debate hits Great Hall



The University's Great Hall witnessed a political rather than an academic debate as the setting for BBC *Question Time*. Panellists joining the Chair, David Dimbleby, included Ruth Kelly MP, Liam Fox MP, Sir Menzies Campbell MP, the comedian David Baddiel and journalist Janet Daley.

May highlight

The BBC's £2.1 million drama village at Selly Oak campus is the biggest television drama base outside London.

June 2005

In brief

- Archaeologists lead search for mass graves
- Genteel pleasures at Edwardian fete
- Love be a lady
- Caffeine key to sports drinks performance
- Happiness is Dudley...
- Plant power holds cancer clues

Archaeologists lead search for mass graves

University archaeologists spent time in Bosnia to assist in locating mass graves potentially linked to the 1995 atrocities in Srebrenica.



Forensic archaeologists Professor John Hunter, Dr Emma Tetlow and Amanda Reddick from the Institute of Archaeology and Antiquity were invited by the International Commission on Missing Persons (ICMP), based in Sarajevo, to join a team of international experts in ascertaining whether new imaging techniques could be applied to locate potential sites of mass graves.

support the ICMP in trying to find where the graves are and to repatriate the victims.'

Most mass graves found in Bosnia-Herzegovina so far have been located based on information supplied by survivors or other witnesses, but the team showed that new imaging techniques could be beneficial.

The team of experts has successfully pinpointed the location of four mass graves near Zvornik in Eastern Bosnia, and estimate that around 750 missing people could be located at those sites.

The Birmingham team joined Dr Julian Scott from the University of Aberdeen and experts from the US-based company Applied Analysis Incorporated to explore the use of satellite imagery, spectral analysis, plant and vegetation analysis and resistivity mapping in pinpointing the precise location of mass graves. All the methods being investigated in this project are non-invasive; the earth does not have to be moved in order to carry out the research, which means no remains are disturbed before exhumation.

Professor John Hunter, who led the research team, said: *'It's almost ten years since the massacre of Srebrenica and that was the point at which something in the order of 30,000 people went missing. There are still a lot of them unresolved and our job has been to*



Genteel pleasures at Edwardian fete

Staff at the University's Winterbourne Botanic Garden donned Edwardian costume while visitors enjoyed games, music and teas in the garden's third Edwardian fete. The fete offered visitors a taste of life when the garden was the Nettlefold family's private garden in 1903. Croquet, a coconut shy and entertainment were on offer at the six-acre garden on the edge of the Edgbaston campus.



Love be a lady

Love was in the air when the Barber Institute came over all romantic for this year's Family Open Day. More than 1,100 children and adults enjoyed a host of practical art and craft activities, drama and storytelling sessions, and concerts and drumming workshops on the theme of 'Art, Music and Love'.

Children were able to make damsels' hats, knights' shields, picture frames and masks. Actors played the roles of French painter Elisabeth Vigée-Lebrun in her boudoir and Impressionist Renoir in the galleries. Adults enjoyed the Ictus Marimba Duo and an illuminating lecture by the Barber's Director, Professor Richard Verdi.

'The theme of love seemed to make the day even more happy and enjoyable than usual,' said the Barber's Education Officer Brian Scholes.

Caffeine key to sports drinks performance

Sports scientists at Birmingham proved that caffeine doesn't just boost alertness; it can also boost physical performance – reopening the controversial debate about the use of caffeine in sport.

Researchers at the University's School of Sport and Exercise Sciences discovered that introducing caffeine into sports drinks increases the rate in which carbohydrate is delivered to the athlete by a surprising 26%, providing much-needed energy enhancements that would be of particular benefit for endurance sports such as cycling, triathlon and long-distance running.

Happiness is Dudley...

The annual 'Happiness' lecture continued its sell-out success with broadcaster Sue Lawley speaking to a packed Great Hall. The former newsreader and BBC Radio 4 *Desert Island Discs* presenter gave a thought-provoking and humorous presentation. Harking back to her childhood in Dudley, attending the Dudley Girls' High School, Sue said an early experience of happiness was seeing the town in her rear-view mirror as she headed off to university in Bristol. In more recent times, finding a good builder has brought happiness to Sue.

The lecture, entitled 'What is happiness and how may it be achieved by individuals as well as nations?' is held as a result of a bequest from an alumnus, Thomas Baggs, in 1973.



Plant power holds cancer clues

Channel 4 News filmed at the Institute of Biomedical Research and Winterbourne Botanic Garden to cover a story on cancer research. Scientists have found that sap from a weed traditionally used for treating corns and warts contains chemicals that can control cell growth and death. This is forming the base for new drug models for fighting leukaemia, other cancers and even arthritis.

The weed is petty spurge (*Euphorbia peplus*), also known as milk weed. An extract of petty spurge has been tested against cancer cells taken from eight patients with acute myeloid leukaemia, a particularly aggressive cancer of bone marrow stem cells. In seven of the eight samples it killed between 56% and 95% of the cancer cells. These results were even achieved using low concentrations of up to a hundredth of those that would damage healthy cells. A clinical trial with myeloid leukaemia patients will begin next year in

Paris. The sap extract works by activating an enzyme called protein kinase C which triggers controlled cell suicide.

Professor Janet Lord, who is leading the research, said: *'We have known for some time that we wanted to target protein kinases as a target for killing cancer cells; the problem has been finding something to do it. The chemicals that exist in nature are more complex than we could easily make, so using natural products is very exciting. Traditional use of plants or 'old-wives tales' can point us in the direction of plants with medicinal potential. These novel treatments could be a useful agent when used alongside current cancer therapies.'*

The Birmingham team is currently working on a five-year project researching protein kinases. This work is part of a major €15 million European Commission project, uniting 23 scientists in 11 countries.

June highlight

The University's annual contribution to the local economy now exceeds £700 million each year.

July 2005

In brief

- A 'fairway' ahead for first golf graduates
- Families have designs on new hospital
- Tornado evacuees housed at Vale
- Milestone event explores city's ethnicity and culture
- Bubbly youngsters in the mix at chemistry camp
- Physicists create a 'perfect' way to study the Big Bang

A 'fairway' ahead for first golf graduates

The first graduates in Applied Golf Management Studies enjoyed a par-fect graduation day.

Twenty students were awarded the BA Hons degree, the first of its kind in the world. The three-year programme is a result of a partnership between the University and the Professional Golfers' Association (PGA), and links a high level academic qualification with a vocational professional one. Many of the students are soon to become full PGA professionals.

Dr Kyle Phillpots, Director of Training and Education at the PGA, said: *'Golf is a major sport, a pastime enjoyed by millions and a worldwide multi-billion dollar industry. Those involved in the development of golf need to be well-educated and qualified to the highest level. The PGA is delighted with the success of this programme and all those who have graduated from it.'*

Three students were celebrating being awarded first-class honours, including former bank manager Jonathan Wright, 36, from London who starts as a coach with Cranfield Golf Academy in the South East; James Bell, 21, from Caterham, who is going on to do a Sports Psychology Masters; and Mike Perry, 21, from Bridgend who is off to work as an assistant professional at Royal Porthcawl Golf Club, Wales.

The degree combines applied academic and theoretical aspects of sport management and science related to golf, with vocational aspects of the game. Topics studied include sports science and sports psychology; biomechanics; business management including retail management and marketing strategy; materials science to study the composition and behaviour of golf balls and clubs; and coaching theory



Families have designs on new hospital

From lively pictures on the ceiling to adventurous greenery – families in Coventry and Warwickshire are helping to design a children's unit in the new University Hospital in Coventry, so that they can feel more at ease during their stays and visits. In a collaboration between the University Hospitals of Coventry and Warwickshire NHS Trust and the University, children and parents were asked their views about how they would like the new unit to look.

This is one of the few research studies in the UK to incorporate children's and parents' views and involve them in the project at all stages. Sixty youngsters of all ages and their parents were interviewed by Dr Jane Coad, a researcher at the University's School of Health Sciences and her research team

about what they would like in the new unit. Following this, 250 child-friendly questionnaires were sent to children, young people and parents in Coventry and Warwickshire who had used Walsgrave Hospital facilities. As a result, the unit in the new hospital will be decorated based on the families' 'wish list' of ideas.

One five-year-old girl said: *'You know, when you're lying down and you can't do stuff, you could have pictures on the ceiling.'*

Liz Thiebe, Director for New Hospital Service Design, said: *'Direct patient participation in the design and function of clinical space is critical to the success of health care building projects. The children's research study fits in perfectly with this philosophy.'*

Bubbly youngsters in the mix at chemistry camp

Bubbles, dyes and chocolate were on the timetable when 50 students from schools across the UK came to the University for a residential chemistry camp. At Salters' Chemistry Camp, students – all aged 15 – were introduced to the fun of chemistry with the aim of developing awareness of and a long-term interest in the subject.

The students investigated the chemical properties of chocolate, including a trip to the Cadbury factory, and chemiluminescence, or 'cold light', to find out what makes fireflies glow. They also explored the mysterious world of bubbles and anti-bubbles, discovered the chemistry behind dyes and dyeing and experienced the material science involved in etching and plating metals.

Milestone event explores city's ethnicity and culture

The subject of a July conference was politically heightened following the terrorist attacks in London. Thought leaders from all communities examined multicultural Birmingham, the second most ethnically diverse city in the UK. The two-day *Ethnicity and Culture in the Global City* event debated how the city has been

shaped and changed by the many different communities that co-exist here. A variety of historical sources were used to trace the growth of Birmingham as a centre for ethnic and cultural diversity, looking at significant developments such as Malcolm X's visit to the region in 1965.

Crazy Frog spawns generation of downloaders

Following last month's battle for the top of the chart between the Crazy Frog and Coldplay a study by Birmingham academics has shown that youngsters spend more money on ringtones, mobiles and computer games than they do on music.

In a pilot study of the practice of consuming music and other leisure items among 220 15 to 16-year olds in Birmingham, Sociology's Dr Peter Webb found teenagers are spending less money on music in favour of free, illegal downloads as music competes for their attention among more popular leisure pursuits, including fashion, mobile 'phones and computer games.

Dr Webb said: 'The success of the Crazy Frog shows the popularity of ringtones among teens and is a clear example of how different markets



compete for youngsters' time and money. This is the situation the music industry has to contend with in a climate of decreasing sales – especially within the singles market – significant free downloading practices and many demands on time, resources and creative practice of consumers in general.'



Tornado evacuees housed at Vale

The University provided emergency accommodation for more than 100 people after families were forced to evacuate their homes following the freak tornado that swept across parts of the city this month. Accommodation and food were swiftly arranged in Shackleton and Tennis Courts, along with sympathy and support from staff, some of whom cancelled their summer leave to help out.

Physicists create a 'perfect' way to study the Big Bang

International scientists, including University physicists, have created the state of matter thought to have filled the universe just a few microseconds after the Big Bang. They found it to be different from what they were expecting. Instead of a gas, it is more like a liquid. Understanding why it is a liquid should take physicists a step closer to explaining the earliest moments of our universe.

July highlight

96% of Birmingham students whose destination is known are either employed or in further study within six months of graduation.

August 2005

In brief

- Scientists set sail on voyage of discovery
- Admissions success
- Hair-raising antics at the Fringe
- New clues to worldwide bird conservation
- Amazing Grace leaves cancer research legacy
- Follow the brand: new research into young people and alcohol
- Sporting stars take on the world

Scientists set sail on a voyage of discovery

Intrepid environmental scientists had a voyage of discovery around the British coastline, joining a skipper, an ecologist and a marine biologist to gain a snapshot of life around the shores of the country.



Dr Ian Boomer from the School of Geography, Earth and Environmental Sciences, and PhD student Naomi Hudson joined the vessel *Gallivanter* as it sailed from Oban to Falmouth, making regular shore stops en route.

At each shore stop, the crew carried out a survey of the surroundings, taking into account the nature, ecology, social and economic history of the location. Dr Boomer's principal role was to look at water quality, analysing samples of sea water to trace pollution from organic materials such as sewage, but he also recorded the weather conditions, water and air temperature and water pressure throughout the trip.

He explains: 'Initial analysis of the water samples collected so far has shown that the British coastal waters appear to be reasonably clean. However there are some hot spots, particularly associated with marinas and where we cross major river plumes such as the Humber, which we are investigating further.'



Admissions success

A level results day meant the Great Hall was turned into Admissions Mission Control. Eight thousand telephone calls were managed by the team, who advised students about the status of their application at the University, or about going through clearing. All clearing places were filled in less than one day without lowering grade boundaries.

Roderick Smith, Director of Admissions, said: 'This year the University has seen a 10% increase in applications for undergraduate courses, encouragingly ahead of the national average. In the league table of most popular universities, at fifth place, the University has received a staggering 40,000 applications.'

Amazing Grace leaves cancer research legacy



Cancer research scientists at the University were delighted by a surprise donation left in a Birmingham woman's will. Grace Hunt, who lived quietly in Handsworth all her life, left a £200,000 gift towards cancer research in Birmingham. Miss Hunt cut a recognisable figure in Handsworth as she and her identical twin sister Mary worked in their family butcher's shop by day and sang in clubs in the evenings.

Grace's donation will support a range of clinical trials with cancer patients, in particular in the statistical analysis of findings. A plaque at the Cancer Research UK Institute for Cancer Studies will commemorate the donation.

Hair-raising antics at the Fringe



Strange Shadows, a play written by Tom Davis, playwright and lecturer from the Department of English and Deirdre Burton, local writer, was performed by the *Watch This* theatre company at this year's Edinburgh Fringe Festival.

The play is a comedy set in a hairdressing salon where the talk is of love, beauty and Shakespeare. The *Watch This* theatre company is made up entirely of university students.

Follow the brand: new research into young people and alcohol

A research project began looking at the power of alcohol advertising in shaping the way young people think about drinking. A team from Birmingham Business School and the universities of Bath and London will interview young people about alcohol advertising in relation to their alcohol consumption and their perceptions of themselves and others. It is hoped the findings may have a significant impact on the government's strategy for reducing binge drinking.

Dr Isabelle Szmigin of Birmingham Business School explained: *'This project will investigate the ways that alcohol advertising might shape young people's identities, for example by encouraging them to see themselves as cool or attractive, manly or feminine, if they drink a particular product or a particular brand.'*

New clues to worldwide bird conservation

Bioscientists unveiled the first ever global map of bird species distribution, published in the journal *Nature*. The map charts the global distribution of three different kinds of hot spot for bird species: areas which are rich in species; areas which are rich in species that are under threat of extinction; and areas that are rich with birds that have their distributions restricted to small areas, called endemic species.

The researchers looked for overlap in the different hot spot types across the globe, but there was very little correlation to be found. This raises problems for the conservation of global bird diversity, because nature reserves that protect areas with many species are therefore not protecting areas with the most threatened or endemic species.

Likewise, nature reserves that protect those bird species most at risk are not protecting many other species.

The only area that contains hot spots of bird species richness, endemism and threat is the Andes of South America, which is an area of prime conservation importance for birds.

Dr Tim Blackburn, from Birmingham's School of Biosciences, said: *'Our research shows that areas with many species are not necessarily those with many endemic and threatened species. As a result, conserving areas with many species will not protect the rare or range-restricted bird species. This kind of knowledge is key to the planning of effective global conservation strategies.'*

Sporting stars take on the world

A Birmingham sports scholar became the first British finisher and broke his personal best at the World University Games in Turkey. Sports and Materials Sciences student Luke Gunn, 22, completed the 3,000m steeplechase event in a time of 8:32:87.

Three other Birmingham sports scholars joined Luke in the Great Britain team, including tennis ace Annabel Blow, archer Naomi Folkard and current British rings champion David Massam. Alumna Louise Bond-Williams competed in the sabre fencing event.

The World University Games were founded in 1923 to enable nations to compete against each other on a world stage at student level. The event is held every two years and is open to competitors between the ages of 17 and 28 who are university students or who have graduated within the previous year of the event. At least 7,000 athletes and officials from 170 countries were present at this year's games in Izmir, Turkey.

August highlight

'This year the University has seen a 10% increase in applications for undergraduate courses, encouragingly ahead of the national average. In the league table of most popular universities, at fifth place, the University has received a staggering 40,000 applications.'

Roderick Smith, Director of Admissions

September 2005

In brief

- Alumni generosity boosts annual fund
- Professor on course to play golf for England
- Engineers to map the underworld
- Alcohol treatment programme saves resources and boosts success
- Criminal psychologists help Operation Strikeout

Alumni generosity boosts annual fund

Generous alumni contributed an impressive £280,000 to the annual fund campaign for 2004–05. With gifts still coming in, over £500,000 has now been raised since the fund was set up in 2002. The Development and Alumni Office distributes money at the end of each year through the University of Birmingham Fund Distribution Committee.

The fund aims to support a range of projects across five important areas: teaching, learning and IT; the campus environment and facilities; the Guild of Students; University Sport Birmingham; and the Undergraduate Bursary Scheme.

A team of 30 students contacted alumni by telephone and updated them on the latest University news, gained feedback and asked them to support the fund. Over two months and 2,000 calls, they had raised the grand total, with more than half of the graduates they spoke with generously pledging their support.

Engineers map the underworld

Engineers at the University are aiming to put paid to unnecessary disruption caused by utility companies when they dig up roads and pavements, by developing techniques to locate and map the cables and pipes buried beneath them. This information can then be shared by these companies in order to streamline street works.

Britain has over four million kilometres of underground cables and pipes – a combination of water, sewer, gas, electricity, telecommunications and drainage. It is estimated that there are 1.5 million holes dug each year on UK highways and footpaths by utility companies so that they can install new services and maintain existing ones.

Professor Chris Rogers, project leader, from the University's Department of Civil Engineering said: 'Utility companies are driven by customer demand for the essential services of water, sewerage, gas, electricity and telecommunications, and there is now increasing pressure on them to provide cable TV, internet and broadband access. We hope that by providing these companies with the means to create a comprehensive map before



they dig, we will help them to carry out their work more efficiently and safely. Parallel research at other universities is seeking to find a common platform for data sharing so that utility companies can co-operate with each other effectively when planning street works so as to cause less disruption to the public.'

Work is already underway on a separate project at the University's Department of



Mechanical and Manufacturing Engineering into new technologies that will make the location and identification of buried assets easier. Researchers are developing micro-sensors which are tiny chips that can be embedded into the pipes at the manufacturing stage. These sensors can be located by electronic signal from a few metres away and will hold information about the condition of the pipe or cable so that preventative maintenance can take place. This two-pronged attack on the problem will therefore seek to create smart location techniques and 'smart pipes' that will tell where they are.

The mapping project, which combines different disciplines across seven universities, is funded by the Engineering and Physical Sciences Research Council for just over £1.2 million.



Criminal psychologists help Operation Strikeout

West Midlands Police consulted three leading criminal psychologists from the University to help construct messages for offenders that will encourage them to move away from a life of crime.

Operation Strikeout is a West Midlands Police campaign to cut crime, aimed particularly at tackling violence and robbery.

Professor Kevin Browne, Dr Alasdair Goodwill and Dr Louise Dixon from the University's School of Psychology specialise in the study

of violent crime and robbery. Their advice has been used to make a series of four postcards to be given out to criminals to urge them to move away from a life of crime and offer to put them in touch with support agencies such as drug action teams.

The postcards stress the emotional cost of committing crime and being sent to prison, from missing important moments in your child's life to losing your social life and your partner.

Professor on course to play golf for England



Pat Wrightson, Professor of Physiotherapy and Head of the School of Health Sciences, was selected to play for England in an international golfing competition, the third Senior Home Internationals competition at Radyr Golf Club, Wales.

Prior to her career in academia, Professor Wrightson played county golf for Yorkshire for 20 years and was selected to play as a girl international. Formerly a scratch handicap golfer, she still retains an impressive handicap of four, though she admits to spending limited time on the golf course.

Alcohol treatment programme saves resources and boosts success

Research by psychologists published in the *British Medical Journal* found that two different strategies of treatment are highly effective for those who are alcohol dependent and that for every £1 spent on these treatments, £5 of taxpayers' money is saved.

These conclusions were the result of the UK's largest study into alcohol treatment involving over 700 patients and 50 therapists. Two non-residential treatments – social behaviour and network therapy and motivational enhancement therapy – were compared. The strategies resulted in equally good outcomes and have made significant changes in the amount of alcohol consumed by patients. After three months of therapy the number of alcohol-abstaining days had risen by almost 50% for both treatments, while the number of drinks per day had dropped by a third.

Professor Jim Orford from the School of Psychology, lead investigator in the project, said: *'Sometimes patients and their families find it difficult to get the right treatment, so raising awareness and improving accessibility to treatment will lead to better results in treating alcohol-dependent people.'*

Dr Alex Copello, Clinical Director of Substance Misuse Services for the NHS in Birmingham and Solihull, and a principal investigator for the trial said: *'It is important to note the potential savings in other health-related areas that can be achieved by investment in treatment for alcohol problems that can be delivered to large numbers of people in community settings.'*

This project was funded by the Medical Research Council and is the biggest multi-centre trial of its kind to take place in the UK.

September highlight

Birmingham attracts 56% of all research grants and contracts in the West Midlands region.

Honours and awards





- 1 Baroness Smith of Gilmorehill
- 2 Dr Edwina Moreton OBE
- 3 Lord Hunt of Kings Heath
- 4 Michael Wood
- 5 Professeur Michel Broué
- 6 Stephen Vbranch
- 7 Professor Sir Liam Donaldson
- 8 The Most Reverend Kevin McDonald
- 9 Dr Monty Jones
- 10 Professor Sir John Lawton
- 11 Mark-Anthony Turnage
- 12 Professor Evgeni Yasin
- 13 Professor Michael Gale
- 14 Professor Eldred Jones
- 15 Professor Fraser Stoddart
- 16 Claire Tomalin
- 17 Michael Frayn

More than 4,000 students graduated in the July Degree Congregations, at which honorary degrees were awarded to the following distinguished individuals:

- **Baroness Smith of Gilmorehill:** Trustee of the John Smith Memorial Trust, established in memory of her late husband, John Smith, former leader of the Labour Party
- **Dr Edwina Moreton, OBE:** Diplomatic Editor and Deputy Foreign Editor of *The Economist*
- **Lord Hunt of Kings Heath, OBE:** Parliamentary Under Secretary of State for Work and Pensions and former junior health minister
- **Michael Wood:** author and BBC presenter, whose series include the controversial *In Search of Shakespeare*

- **Professeur Michel Broué:** leading French mathematician
- **Stephen Vbranch:** biochemical engineer
- **Professor Sir Liam Donaldson:** Chief Medical Officer for England
- **The Most Reverend Kevin McDonald:** Archbishop of Southwark, former parish priest in Birmingham
- **Dr Monty Jones:** co-winner of the prestigious 2004 World Food Prize, following his discovery of the genetic process to create the New Rice for Africa (NERICA)
- **Professor Sir John Lawton:** Chair of the Royal Commission on Environmental Pollution
- **Mark-Anthony Turnage:** composer
- **Professor Evgeni Yasin:** One of Russia's most eminent economists
- **Professor Michael Gale:** cereal geneticist

- **Professor Eldred Jones:** author of works including *Africans in Shakespeare*, and founder and editor of *African Literature Today*
- **Professor Fraser Stoddart:** nanosystems scientist and former Head of the University's School of Chemistry
- **Claire Tomalin:** biographer, with subjects including Mary Wollstonecraft, Katherine Mansfield and Jane Austen
- **Michael Frayn:** author of ten novels and three original screenplays

The 'Alumni of the Year' were:

- **John McNamara:** Principal of Elmhurst School for Dance
- **The Hon Perry Gladstone Christie:** Prime Minister of the Bahamas

Just some of the people who make it happen...

1

University Artist in Residence, Chitraleka Bolar, and her company took *The Story of C* on an international tour of India. The Science/Art contemporary Indian music and dance production was performed in Bangalore, Kerala and Chennai. More than 10,000 people saw the performances.

2

Council secured the agreement of both the Vice-Chancellor, Professor Michael Sterling, and the Vice-Principal, Professor Michael Clarke, to extend their current contracts. This will provide continuity of leadership over the next four years at a critical moment in the development of the University and higher education more generally.

3

Staff and members of the Munrow Sports Centre raised £1,500 during their charity week event, to be divided between the Foundation for Conductive Education and the Birmingham Children's Hospital Burns and Education Unit. This year also saw the first Starwalk in aid of Cystic Fibrosis, with walkers stepping out over a 10km campus circuit to raise more than £1,000. The annual University road race continues to go from strength to strength, with runners raising money for Acorns Children's Hospice as well as enjoying health and competitive benefits.

4

Dr Robert Beckford, Lecturer in African Diasporan Religions and Cultures, wrote and fronted two hard-hitting Channel 4 programmes during this year. On Christmas Day, the documentary *Who Wrote the Bible?* traced Biblical origins. In August's *The Empire Pays Back*, he looked at how much Britain profited from the Transatlantic Slave Trade.

5

Waseem Mahmood, a PhD student in the Department of American and Canadian Studies, was awarded an OBE in the Queen's New Year Honours List for services to the development of media in post-war countries. Waseem played a key role in re-establishing Radio Afghanistan.

6

Dentistry student Amrita Hunjan was crowned Miss India Worldwide at a Bollywood star-studded event in Mumbai.

7

University chefs won the gold medal at the University Caterers Organisation Annual Chefs' Challenge. The innovative four-course meal, which served four people, included saddle of lamb with Clonakilty white pudding. Birmingham's team, Mark Houghton, Kevin Anthony and Chrissie Smith also carried off 'Overall Best Hygiene and Safety' Award.

8

The Chancellor's prize was awarded to microbiology student Helen-Louise Birch. The prize is awarded to a mature student with an outstanding academic record who has also contributed to the life of the University. Helen has also received an award from the Society of Microbiology.

9

The Vice-Chancellor's prize was awarded to fifth-year medical student David Wood, who graduated with honours, was president of the Medical Society and established a health promotion teaching programme in Northern Ghana.

10

Professor William Vinen was awarded the Guthrie Medal and Prize at the Institute of Physics Awards dinner. Professor Vinen works within the Condensed Matter Group in the School of Physics and Astronomy.

11

Alumnus Phil Bateman (BMus 1992) is Musical Director of the smash-hit West End musical *Billy Elliot*.

12

Staff from the Barber Institute and University Collections scooped a runners-up award in the national Drawing Inspiration Awards, out of some 1,500 entries. A week of workshops under the national 'The Big Draw' scheme linked drawing with sculpture.

13

Colin Parker, Cleaning and Porters, was shortlisted in the *Birmingham Evening Mail's* competition to find the best image of Birmingham with his picture of the clock tower.

14

Professor Steve Busby, Professor of Biochemistry and former Dean, has been elected as a Fellow of the Royal Society.

15

Talented sporting students were honoured at the Athletic Union Annual Awards Dinner. The following 2004–05 accolades were presented:

- Quench Sportswoman of the Year – Olympic Archer, Naomi Folkard
- Aedas Sportsman of the Year – Great Britain and England Junior International Cyclist, Jack Hill
- Coach of the Year – Triathlon's Steve Lumley
- Ernst & Young Team of the Year – Birmingham University Lions Club of the Year – Triathlon (pictured)
- The Victoria Wesley Award for Outstanding Contribution to the Athletic Union – Vikki Manning, Trampolining

16

Former Birmingham Drama student, Kirsty Munro, aged 21, won the Whitbread Young Arts Achiever award, sponsored by TGI Friday's and The Royal Society for the encouragement of Arts, Manufactures and Commerce (RSA).



...and also

Emeritus Professor of Highway Engineering, **Professor Martin Somerville Snaith** was awarded an OBE for his services to the transport industry in developing countries.

Alumnus and regular guest lecturer **Phil Shiner** was named Human Rights Lawyer of the Year.

Professor Russell Jackson has been working with Kenneth Branagh as text advisor on a feature film adaption of Shakespeare's *As You Like It*.

Dr Kyle Jiang, lecturer in the Department of Manufacturing and Mechanical Engineering, has been made a Visiting Professor at Tianjin University to improve information and technology transfer in the field of micro-electro-mechanical systems and microengines.

The Medical School's **Professor Paul Stewart** presented the Clinical Investigator Award lecture at the Endocrine Society's 87th Annual Meeting in California. Professor Stewart's work has increased understanding of obesity and hypertension.

Anthony McClaren, Chief Executive of the Universities and Colleges Admissions Service (UCAS) visited the University for a high-level careers and admissions conference.

Professor Carole Rakodi of the International Development Department has been appointed to the Advisory Board of UN-HABITAT's Global Research Network on Human Settlements.

Dr Essaka Joshua of the English Department was elected to a year-long Visiting Fellowship at Oriol College, Oxford.

The Institute of Archaeology and Antiquity's **Professor Andrew Barker** was elected as Fellow of the British Academy.

Dr Bob Bushaway, Director of Research and Enterprise Services, was elected Chair of the Association for University Research and Industry Links.

Director of Finance **Mrs Gill Ball** has been elected Vice-President of the Association of Chartered Certified Accountants.

Professor Glyn Humphreys, Head of the School of Psychology, will Chair the MRC New Investigator Award panel in 2005–2008.

Alumnus **Paul Moss** (Theology) sang the Gospel at Pope John Paul II's funeral.

Professor Ray Smallman, Department of Metallurgy and Materials, has been elected a Foreign Associate of the United States National Academy of Engineering.

Sub-Dean of Medicine **Robert (Bob) Arnott** has been elected Vice-President of the Birmingham Medical Institute, founded in 1875 by surgeon Sampson Gamgee.

Professor Judith Petts, Head of the School of Geography, Earth and Environmental Sciences, has been appointed to the Royal Commission on Environmental Pollution for three years.

Peter Leather, Centre for Lifelong Learning, was elected to the Executive Council of the Birmingham Civic Society and will chair its Heritage Committee.

Albanian-born **Dr Gëzim Alpion**, lecturer in Sociology, wrote *If only the Dead Could Listen*, a play about East European asylum seekers, which went on to be staged at the Birmingham Midlands Institute.

Alumnus **Dan Jones** (BA Media, Culture and Society, 2001) was awarded the BAFTA Interactive New Talent Award.

Professor Willie Paterson, Director of the Institute for German Studies, was appointed Chair of the German-British Forum. He took over from Lord Hunt of Westwell, the former Foreign Secretary.

Dr Julian Lonbay from the School of Law, was appointed as European Adviser to the Law Society of England and Wales.

Dr Peter Borchers of the School of Physics and Astronomy was elected a Fellow of the Institute of Physics.

Professor Paul Bacon of the School of Medicine, was given the award of Master by the American College of Rheumatology.

Head of Chemical Engineering, **Professor Jonathan Seville**, was elected a Fellow of the Royal Academy of Engineering.

Professor Colin Timms, Department of Music, was awarded the Derek Allen prize by the British Academy for his book *Polymath of the Baroque: Agostino Steffani and His Music*.

Computer Science's **Dr Russell Beale** was elected Chair of the British Computer Society's Human-Computer Interaction Special Interest Group.

Professor Lynne Macaskie from the School of Biosciences won the Royal Society Brian Mercer award for her team's work to recycle road sweepings and urban waste.

The University community now numbers around 5,600 staff, 32,000 students and 140,000 graduates living across the globe. These highlights represent just a glimpse of their enormous dedication and achievements throughout the year.





Annual accounts

The accounts for the year ended 31 July 2005

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Report of the Treasurer

As measured by its four key financial indicators of:

- generating an adequate and recurrent surplus,
- using University reserves for investment purposes,
- ensuring sustained investment in facilities,
- maintaining adequate cash resources for working capital purposes

the University continues to maintain a financially sustainable position.

The summary results are:-

	2004/05 £m	2003/04 £m	2002/03 £m
Income	334.4	309.7	291.8
Expenditure	<u>313.5</u>	<u>294.0</u>	<u>279.7</u>
Operating Surplus	<u><u>20.9</u></u>	<u><u>15.7</u></u>	<u><u>12.1</u></u>

In line with its policy, the University has generated surpluses of broadly 4-6% of its income over the last three years, enabling the planned investments both in staff and facilities.

Overall, income has increased by almost 8%, reflecting consistent growth from all major income sources. It is particularly pleasing to note the increase in income from research grants and contracts after last year's slight decline, and modest growth only in the year before that.

Other operating income shows a rise of over 12%, as income from residences, catering and conferences grew, together with the very welcome receipt of a refund of VAT.

The University's expenditure has grown by 6.6%. In line with many universities, staff costs at Birmingham represent almost 58% of the total expenditure. These have increased by 6.9% over the previous year. This is a result of several factors, including annual pay awards of 3%, further re-balancing of staff towards Academic and Clinical roles, the impact of introducing the new clinical consultant pay structure, and a continuing drive to improve the position of the lower paid members of our staff.

Depreciation reflects, in income and expenditure terms, the annual cost of using the University's estate and facilities. The charge has increased by 10.2% this year, again at a rate greater than the overall increase in expenditure. This growth is inevitable and will continue as the University commits to and maintains a sustainable capital investment programme.

The University's operating surplus of £20.9m for 2004/05 represents 6.2% of turnover and is further augmented by the exceptional item of £2.1m – the surplus on the sale of land and buildings on the University's southern boundary to the City Council for the development of the A38 relief road. However, around £5.2m of the surplus is simply expenditure that has been delayed into 2005/06.

There is still a substantial investment need, in staff and facilities, as the introduction of tuition fees in 2006 and the Research Assessment Exercise edge ever closer. The significant surpluses over the last three years have placed the University in a good position to deliver those investments, to maximise the gains, and to address the challenges that those opportunities will present.

Report of the Treasurer

The University's available reserves have grown by almost £18m in the year, mainly due to the surplus generated during the period. This is the result of the investment of funds in new developments in a number of budget centres – which is precisely the stated purpose of holding reserves.

The investment in buildings and capital infrastructure was £51m in 2004/05. This brings the total to £180m over the last three years. With an insured value in excess of £1bn, the need for renewal and investment is constant if the University is to continue to occupy a campus that is fit to deliver its teaching and research activities, in addition to providing a very positive student experience and a place that staff are proud and happy to work in.

This year has seen significant progress on the new building for Sport and Exercise Science. There has also been further investment in teaching space and related facilities in the Medical School, plus a significant commitment to some of the backlog maintenance issues that are well-recognised across the campus as a problem and which will take time to address.

The cash and working capital resources remain under close scrutiny. Due to careful management in this and other years, it has been possible to redeem virtually all of the University's long-term borrowing in favour of revolving credit facilities with banks. This has generated significant savings in interest in this year and will do so into the future. It was pleasing to note that in 2004/05, the new facilities were not utilised at all.

The returns on the long-term investment fund were 15.8% this year, compared with 8% last year, and generated income of £2.6m, which exceeded the targets set for the investment managers. This is a very important income stream for the University in supporting posts, scholarships and prizes. The investment portfolio has been significantly restructured this year to maximise the returns within an agreed level of risk.

As the University moves into 2005/06, there are two potentially significant factors that should be highlighted. Firstly, the Birmingham Pension and Assurance Scheme (BPAS) has undergone its triennial actuarial valuation. This will be finalised in December 2005 and is currently showing a significant and ongoing deficit.

Note 31 to the accounts shows that the FRS17 deficit for BPAS has increased significantly since last year, from £40.2 million to £53.7 million. In future, the University will be required to recognise the FRS17 position within the body of the Financial statements.

It is expected that the shortfall will be funded by a combination of a significant contribution from the University together with an increase in support from the Scheme members, if the defined benefit structure is to be retained.

Secondly, the implementation date of the new framework for academic and related staff at Birmingham has been agreed as 1 January 2006. The costs are significant and will consume all of the funds awarded by HEFCE under the "Rewarding and Developing Staff" initiative, plus a substantial share of the additional fee income from the full implementation of tuition fees. The costs of the framework in the early years will exceed the funding available from those two sources and the University must carefully manage this over the next three years.

The University has again achieved its financial objectives in the year and this has contributed to an overall increase in its financial health. There is no doubt that the introduction of tuition fees, the Research Assessment Exercise, the actuarial valuation of BPAS and the implementation of the new pay framework will provide many challenges – both financially and operationally. These are some of the many facets of the University's recently agreed Strategic Framework, which sets out the vision for 2010. However, the relative financial strength of the University leaves it well placed to address those challenges and opportunities with confidence.

Corporate Governance

The following statement is given to assist readers of the Financial Statements to obtain an understanding of the Governance procedures applied by the University's Council.

The University endeavours to conduct business:

- i) in accordance with the seven principles identified by the Nolan Committee on standards in public life (selflessness, integrity, objectivity, accountability, openness, honesty and leadership),

AND

- ii) in the light of the guidance to the University which has been provided by the Committee of University Chairmen in its 'Guide for Members of Governing Bodies of Universities in England and Wales'.

The Council welcomes the Combined Code on Corporate Governance issued by the London Stock Exchange, particularly as the University is a significant investor in a wide range of listed companies. The University is committed to exhibiting best practice in all aspects of corporate governance and this summary describes the manner in which the University is moving to apply the principles set out in section 1 of the Combined Code.

Summary of the University's Structure of Corporate Governance

The University's Council comprises 30 lay and academic persons appointed under the Statutes of the University, the majority of whom are non-executive. The roles of Chairman and Deputy Chairman of the Council are separate from the role of the University's Chief Executive, the Vice-Chancellor and Principal. The matters specifically referred to the Council for decision are set out in the Statutes of the University; by custom and under the Financial Memorandum with the Higher Education Funding Council for England, the Council holds to itself the responsibilities for the ongoing strategic direction of the University, approval of major developments and the receipt of regular reports from Executive Officers on the day-to-day operations of its business and its subsidiary companies.

The Council meets at least four times a year and has several Committees including a Strategy, Planning and Resources Committee, an Audit Committee, a Council Membership Committee and a Remuneration Committee. These Committees are formally constituted with terms of reference and with the exception of the Strategy, Planning and Resources Committee they comprise mainly lay members of Council, one of whom is the Chair. The Strategy, Planning and Resources Committee comprises both academic and lay members of Council, and is chaired by the Vice-Chancellor and Principal.

The Strategy, Planning and Resources Committee recommends to Council a corporate plan for the University, embracing all matters of a long-term, medium-term and short-term nature. It brings together academic, financial and physical planning and monitors the effectiveness of all such plans.

Corporate Governance (continued)

The Audit Committee meets at least twice annually. The Committee reviews the effectiveness of the University's financial and other control systems, satisfies itself that satisfactory arrangements are in place to promote economy, efficiency and effectiveness and advises the Council on risk management and the effectiveness of the accounting procedures. It reviews the external auditor's report and the scope and effectiveness of the internal auditor's work and advises Council on the appointment of both the Internal and External Auditor. It receives and considers reports from the Higher Education Funding Council for England as they affect the University's business and monitors adherence with the regulatory requirements and reviews the University's annual financial statements together with the accounting policies. Whilst senior executives attend meetings of the Audit Committee as necessary, they are not members of the Committee, and the Committee does meet with the Internal and External Auditors on their own for independent discussions.

The Remuneration Committee meets annually and comprises the Pro-Chancellor, the Treasurer, one other lay member of Council and the Vice-Chancellor and Principal. It determines the annual remuneration of professorial and senior administrative staff, having sought comparative information within the University sector and elsewhere.

The Council Membership Committee considers nominations for Council membership under the relevant ordinance.

In addition, the Senate, under the Statutes, is responsible to the Council for regulating and directing the academic work of the University in teaching, examining and research for the award of all Degrees, Diplomas, Certificates and other academic distinctions of the University and for the discipline (whether intra-mural or extra-mural) of the students of the University and for the enforcement of such discipline.

The Council has responsibility for maintaining a sound system of internal control that supports the achievement of policies, aims and objectives, while safeguarding the public and other funds and assets for which it is responsible, in accordance with the responsibilities assigned to the governing body in article 9 of the Charter of Incorporation, Section 25 of the Statutes of the University and the Financial Memorandum with the HEFCE.

Statement of Internal Control

As the governing body of the University of Birmingham, we have responsibility for ensuring a sound system of internal control that supports the achievement of policies, aims and objectives, while safeguarding the public and other funds and assets for which we are responsible, in accordance with the responsibilities assigned to the governing body in the Charter and statutes and the financial memorandum with HEFCE.

The system of internal control is designed to manage rather than eliminate the risk of failure to achieve policies, aims and objectives; it can therefore only provide reasonable and not absolute assurance of effectiveness.

The system of internal control is based on an ongoing process designed to identify the principal risks to the achievement of policies, aims and objectives, to evaluate the extent and nature of those risks and to manage them efficiently, effectively and economically. This process has been in place for the year ended 31 July 2005 and up to the date of approval of the financial statements, and accords with HEFCE guidance.

Corporate Governance (continued)

As the governing body, we have responsibility for reviewing the effectiveness of the system of internal control. The following processes have been established:

- Council meet a minimum of four times a year to consider the plans and strategic direction of the institution
- Council receive periodic reports from the Audit Committee concerning internal control, and we require regular reports from managers, either directly or through the Strategy, Planning and Resources Committee, on the steps they are taking to manage risks in their area of responsibility, including progress reports on key projects
- Council have requested the Audit Committee to provide oversight of the risk management process. This provides a formal reporting and appraisal mechanism, in addition to the reports noted above
- The Audit Committee receives regular reports from the Head of Internal Audit, which include their independent opinion on the adequacy and effectiveness of the institution's system of internal control, together with recommendations for improvement
- An annual facilitated workshop takes place to identify and keep up to date the record of risks facing the institution
- An organisation wide risk register is maintained
- Heads of budget centres have received guidance on how to monitor and manage risks in their area of responsibility
- A system of key performance indicators has been developed for the risks contained in the risk register, and residual risks are monitored against these regularly
- Reports are received from budget holders, department heads and project managers on internal control activities.

Our review of the effectiveness of the system of internal control is informed by the Internal Audit Service, which operates to standards defined in the HEFCE Audit Code of Practice, and which was last reviewed for effectiveness by the HEFCE Audit Service in November 2000.

Our review of the effectiveness of the system of internal control is also informed by the work of the executive managers of the institution, who have responsibility for the development and maintenance of the internal control framework, and by comments made by the external auditors in their management letter and other reports.

Council who's who

October 2004 – September 2005

1

Professor Jonathan Michie: Director, Birmingham Business School (Senate elected member)

2

Professor Jeff Bale: School of Biosciences (Senate elected member)

3

Mr Dave Hartnett CB: Director General, HM Revenue and Customs

4

Mr David Brooks: formerly of Cadbury/Schweppes; City Challenge, The Prince's Trust and Selly Oak Colleges.

5

Mr Peter Ullathorne: Fellow, Institute of Chartered Accountants. President, National Association of Steel Stockholders. Member, Guild of Graduates and Alumni Association.

6

Professor Willie Henderson: Director of the Centre for Lifelong Learning (Senate elected member)

7

Professor Colin Thomas: School of Engineering (Senate elected member)

8

Mr Michael Borkan: member of the HEFCE Leadership, Governance and Management Advisory Committee.

9

Mrs Patricia Yarrow: whose background spans a career in personnel management including posts in local authorities, civil service, higher education and the police.

10

Dr Peter Borchers: Physicist, President of Guild of Graduates.

11

Mr Jim Glover: Treasurer

12

Miss Ena Evans: mathematics teaching career, Governor of numerous schools.

13

Mrs Lesley Payne: Head of Department and Sixth Form Tutor, St Paul's School for Girls, Birmingham; Life Member of Court.

14

Dr John Craggs: Managing Director of a Midlands-based bus and coach operating company.

15

Professor William Doe: Dean of Medical School (Senate elected member).

16

Rt Revd Mark Santer: former Bishop of Birmingham, non-executive director of the University Hospital Birmingham NHS Foundation Trust.

17

Mr Roger Dancey: Chief Master, King Edward's School, Birmingham.

18

Dr Jagjit Singh Taunque: life member of Birmingham Inter-faith Council, trustee of Birmingham Council of Faiths and Patron of Birmingham International Council.

19

Mr Bob Moore: Deputy Pro-Chancellor

20

Dr Jonathan Nicholls: Registrar and Secretary

21

Professor Michael Clarke: Vice-Principal

22

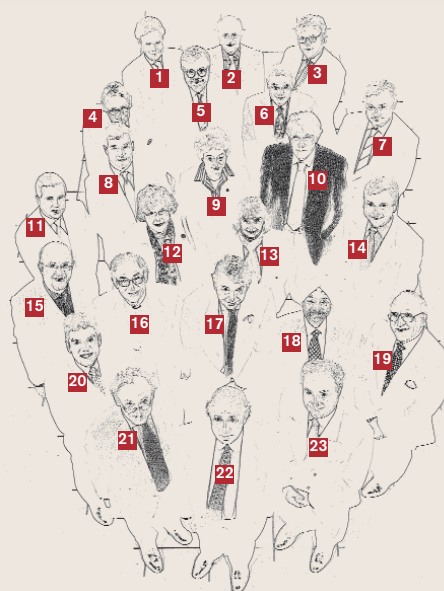
Lord Hannay of Chiswick: Pro-Chancellor

23

Professor Michael Sterling: Vice-Chancellor

Members of Council for 2004–05 not pictured:

- Professor Robert Curtis, School of Mathematics (Senate elected member)
- Mr James Anthony, President, Guild of Students
- Mr Matthew Marshall, Vice-President (Education) Guild of Students





Responsibilities of the Council

In accordance with the Royal Charter, the Council of the University of Birmingham is responsible for the administration and management of the affairs of the University and is required to present audited financial statements for each financial year.

The Council is responsible for keeping proper accounting records which disclose with reasonable accuracy at any time the financial position of the University and to enable it to ensure that the financial statements are prepared in accordance with the University Statutes, the Statement of Recommended Practice: Accounting for Further and Higher Education Institutions and other relevant accounting standards. In addition, within the terms and conditions of a Financial Memorandum agreed between the Higher Education Funding Council for England and the Council of the University, the Council, through its designated office holder, is required to prepare financial statements for each financial year which give a true and fair view of the state of affairs of the University and of the surplus or deficit, cash flows, and total recognised gains and losses for that year.

In preparation of the financial statements, the Council has to ensure that:

- suitable accounting policies are selected and applied consistently;
- judgements and estimates are made that are reasonable and prudent;
- applicable accounting standards have been followed, subject to any material departures disclosed and explained in the financial statements; and
- it is satisfied that the University has adequate resources to continue in operation for the foreseeable future; for this reason the going concern basis continues to be adopted in the preparation of the financial statements.

The Council has taken reasonable steps to:

- ensure that funds from the Higher Education Funding Council for England and the Teacher Training Agency are used only for the purposes for which they have been given and in accordance with the Financial Memorandum with these bodies and any other conditions which these bodies may from time to time prescribe;
- ensure that there are appropriate financial and management controls in place to safeguard public funds and funds from other sources;
- safeguard the assets of the University and to prevent and detect fraud; and
- secure the economical, efficient and effective management of the University's resources and expenditure.

Report of the Auditors

Independent auditors' report to the Council of the University of Birmingham

We have audited the financial statements on pages 50 to 74, which comprise the consolidated income and expenditure account, the balance sheets, the consolidated cash flow statement, the statement of total recognised gains and losses and the related notes which have been prepared under the historical cost convention and the accounting policies set out in the statement of accounting policies.

This report is made solely to the Council, in accordance with the Charter and Statutes of the University. Our audit work has been undertaken so that we might state to the Council those matters we are required to state to it in an auditor's report and for no other purpose. To the fullest extent permitted by law, we do not accept or assume responsibility to anyone other than the Council, for our audit work, for this report, or for the opinions we have formed.

Respective Responsibilities of the University's Council and the auditors

The University's Council is responsible for preparing the financial statements. Our responsibilities as independent auditors are established by statute, the Auditing Practices Board, the Higher Education Funding Council for England and our profession's ethical guidance.

We report to you our opinion as to whether the financial statements give a true and fair view and are properly prepared in accordance with the Statement of Recommended Practice on Accounting in Further and Higher Education Institutions. We also report to you whether income from funding bodies, grants and income for specific purposes and from other restricted funds administered by the University have been properly applied only for the purposes for which they were received and whether, in all material respects, income has been applied in accordance with the Statutes and, where appropriate, with the Financial Memorandum with the Higher Education Funding Council for England and the funding agreement with the Teacher Training Agency.

We also report to you if, in our opinion, the Treasurer's Report is not consistent with the financial statements, if the University has not kept proper accounting records, the accounting records do not agree with the financial statements or if we have not received all the information and explanations we require for our audit.

We read the other information contained in the Treasurer's Report (including the corporate governance statement), and consider the implications for our report if we become aware of any apparent misstatements within it.

Basis of Opinion

We conducted our audit in accordance with Auditing Standards issued by the Auditing Practices Board and the Audit Code of Practice issued by the Higher Education Funding Council for England. An audit includes examination, on a test basis, of evidence relevant to the amounts and disclosures in the financial statements. It also includes an assessment of the significant estimates and judgements made by the University's Council in the preparation of the financial statements and of whether the accounting policies are appropriate to the institution's circumstances, consistently applied and adequately disclosed.

Report of the Auditors (continued)

We planned and performed our audit so as to obtain all the information and explanations that we considered necessary in order to provide us with sufficient evidence to give reasonable assurance that the financial statements are free from material misstatement, and we evaluated the overall adequacy of the presentation of information in the financial statements.

Opinion

In our opinion:

- the financial statements give a true and fair view of the state of affairs of the University and the group as at 31 July 2005 and of the group's surplus of income over expenditure, recognised gains and losses and cashflows for the year then ended, and are properly prepared in accordance with the Statement of Recommended Practice – Accounting for Further and Higher Education Institutions;
- in all material respects, income from the Higher Education Funding Council for England, and the Teacher Training Agency, grants and income for specific purposes and from other restricted funds administered by the University during the year ended 31 July 2005 have been applied for the purposes for which they were received;
- in all material respects, income during the year ended 31 July 2005 has been applied in accordance with the University's statutes and, where appropriate, with the financial memorandum with the Higher Education Funding Council for England and the funding agreement with the Teacher Training Agency.

KPMG LLP

15 December 2005

Chartered Accountants

Registered Auditor

Statement of Principal Accounting Policies and Estimation Techniques

The Accounts for the year ended 31 July 2005

1. General

In accordance with FRS 18 these accounting policies have been reviewed by the University's Council and are considered appropriate to the University's activities.

The Financial Statements have been prepared on the historical cost accounting basis, modified for the revaluation of certain fixed assets and investments, and in accordance with the Statement of Recommended Practice (SORP) applicable to Higher and Further Education Institutions and applicable Accounting Standards. They conform to the guidance published by the Higher Education Council for England.

2. Land and Buildings

Land and Buildings are stated at cost, or at valuation if acquired before 31 July 1998.

The University depreciates its buildings on the basis of:

Academic and administrative buildings	– 50 years
Residential and commercial buildings	– 30 years

The costs of renovating or converting buildings are capitalised and depreciated in accordance with the above basis.

Heritage buildings are maintained in such a state that their residual values are not materially different from their book values and hence a nil depreciation charge is made.

Land is not depreciated.

Major repairs and refurbishments are capitalised and depreciated over 10 years, where they substantially add to the total area of the building, prolong its useful life or enhance the economic benefits of the building.

Where buildings are acquired with the aid of specific grants they are capitalised and the related grants are credited to deferred grants. The deferred capital grants are released to the Income and Expenditure Account over the useful economic life of the asset.

All buildings are regularly reviewed for indications of impairment. Where there is an impairment, the difference between the assessed recoverable value of the building and its written down cost is charged to the Income and Expenditure Account.

The Transitional rules in FRS 15 have been applied and the book values at implementation have been retained.

3. Equipment

All equipment is capitalised at cost, irrespective of value, and is depreciated over three years on a straight-line basis. Where equipment is acquired with the aid of specific grants, the grant is treated as a deferred capital grant and released to the Income and Expenditure Account over the expected useful economic life of the equipment.

Statement of Principal Accounting Policies and Estimation Techniques (continued)

The Accounts for the year ended 31 July 2005

4. Investments

Fixed Asset Investments are included in the Balance Sheet at market value. Increases/decreases in value arising on the revaluation of Fixed Asset Investments are carried to the Revaluation Reserve. Where a permanent diminution in value of an asset occurs, the excess will be charged to the Income and Expenditure Account to the extent it is not covered by a revaluation surplus.

Endowment Asset Investments are carried at market value. Such investments held at the previous year end, and carried at market value at that date, may be sold during the year. This crystallizes the value and any difference between the opening market value and the sale proceeds represents a revaluation movement. Consequently, the financial statements do not distinguish between the valuation adjustment relating to sales and those relating to continuing holdings as they are together treated as changes in the values of the investment portfolio.

Current Asset Investments are included at the lower of cost and net realisable value.

5. Stocks

Stocks for building maintenance and for resale are included at the lower of cost and net realisable value.

Consumable items are charged directly to the Income and Expenditure Account.

6. Cash Flows and Liquid Resources

Cash flows comprise increases and decreases in cash. Cash includes cash in hand, deposits repayable on demand and overdrafts. Deposits are repayable on demand if they are in practice available within 24 hours without penalty.

Liquid Resources comprise assets held as a readily disposable store of value. They include term deposits, government securities and loan stock held as part of the University's treasury management activities. They exclude any such assets held as Endowment Asset Investments.

7. Repairs and Maintenance

The University has established a long-term plan for repairs and maintenance which ensures that the buildings remain in their current state of repair. The costs of repairs and maintenance are charged to the Income and Expenditure Account as incurred, unless they fulfil the capitalisation criteria described in paragraph 2.

8. Pensions

Retirement benefits for employees of the University are provided by defined benefit schemes, which are funded by contributions from the University and employees.

Statement of Principal Accounting Policies and Estimation Techniques (continued)

The Accounts for the year ended 31 July 2005

The two principal pension schemes for the University's staff are the Universities' Superannuation Scheme (USS) for academic and academic-related staff, and the University of Birmingham Pension and Assurance Scheme (BPAS) for other staff. The schemes are defined benefit schemes which are externally funded and contracted out of the State Earnings-Related Pension Scheme.

The USS is valued every three years by the Government Actuary and BPAS is valued every three years by a professionally qualified independent actuary. Pension costs are assessed on the latest actuarial valuations of each scheme and are accounted for on the basis of charging the cost of providing pensions over the period during which the University benefits from the employees' service.

9. Taxation

The University is an exempt charity within the meaning of Schedule 2 of the Charities Act 1993 and as such is a charity within the meaning of Section 506(1) of the Taxes Act 1988. Accordingly, the university is potentially exempt from taxation in respect of income or capital gains received within categories covered by Section 505 of the Taxes Act 1988 or Section 256 of the Taxation of Chargeable Gains Act 1992 to the extent that such income or gains are applied to exclusively charitable purposes. Except for its trading activities and certain research and consultancy activities, the University cannot recover the Value Added Tax suffered on its expenditure and this cost is included under the various related expenditure heads.

The University's subsidiary companies are subject to corporation tax and value added tax in the same way as any commercial organisation.

Deferred tax is recognised in respect of all timing differences that have originated but not reversed at the balance sheet date where transactions or events that result in an obligation to pay more tax in the future or a right to pay less tax in the future have occurred at the balance sheet date.

10. University Companies

The results of the University's subsidiary undertakings have been consolidated in the financial statements and details of interests in these subsidiary undertakings are provided in note 34 to the Accounts.

11. Leased Assets

Where assets are financed by leasing arrangements that give rights approximating to ownership (finance leases), the assets are treated as if they had been purchased outright and the corresponding liability to the leasing company is included as an obligation under finance leases. Depreciation on leased assets is charged to the income and expenditure on the same basis as above. Leasing payments are treated as consisting of capital and interest elements and the interest is charged to the income and expenditure account over the period of the lease.

All other leases are operating leases and the annual rentals payable are charged to the Income and Expenditure Account

Statement of Principal Accounting Policies and Estimation Techniques (continued)

The Accounts for the year ended 31 July 2005

12. Merit Awards

Amounts paid in respect of Merit Awards on behalf of Health and Hospital Authorities and recharged to those Authorities, are included within the Income and Expenditure Account.

13. Guild of Students

The financial statements for the University of Birmingham Guild of Students have not been consolidated, as the University has no control or dominant influence over policy decisions. The contribution made by the University to the Guild is shown in note 8 and the aggregate capital and reserves and surplus for the year to 31 July 2005 are shown in note 35.

14. Recognition of Income

The recurrent grant from the Higher Education Funding Council for England represents the funding allocation, which is attributable to the current financial year and is credited direct to the Income and Expenditure Account.

Grants which are applied to acquire tangible fixed assets are credited to deferred grants and released to the Income and Expenditure Account over the estimated useful lives of the relevant assets.

Income from Specific Endowments and Donations, other Government Grants and other Specific Grants and Research Grants and Contracts is included to the extent of the expenditure incurred during the year, together with any related contributions towards overhead costs. Income from specific endowments not expended in accordance with the restrictions of the endowment is transferred from the income and expenditure account to specific endowments. Income from other services rendered is included to the extent of completion of the contract or services concerned and is measured at the fair value of the consideration receivable. All income from short-term deposits and general endowment asset investments is credited to the Income and Expenditure Account on a receivable basis.

Tuition fees represent student fees received and receivable attributable to the current accounting period.

The University acts as an agent in the collection and payment of training bursaries from the Teacher Training Agency and of Access Funds from HEFCE. Related payments received from Health Authorities, the Teacher Training Agency and HEFCE and subsequent disbursements to students are excluded from the Income and Expenditure Account and are shown separately in note 32. Income from short term deposits is accrued up to the balance sheet date.

15. Provisions

Provisions are recognised when the University has a present legal or constructive obligation as a result of a past event, when it is probable that a transfer of economic benefit will be incurred, and this transfer can be reliably estimated.

16. Foreign Currencies

Transactions denominated in foreign currencies are recorded at the rate of exchange ruling on the dates of the transactions. Monetary assets and liabilities denominated in foreign currencies are translated into sterling either at year-end rates or, where there are related forward foreign exchange contracts, at contract rates. The resulting exchange differences are dealt with in the determination of income and expenditure for the financial year.

Consolidated Income and Expenditure Account

For the year ended 31 July 2005

	Note	2004/5 £000	2003/4 £000 As re-stated (Note 22)
Income			
Funding Council Grants	1	114,213	105,200
Academic Fees and Support Grants	2	66,170	63,181
Research Grants and Contracts	3	73,609	70,201
Other Operating Income	4	76,558	68,104
Endowment Income and Interest Receivable	5	<u>3,863</u>	<u>3,089</u>
Total Income		<u>334,413</u>	<u>309,775</u>
Expenditure			
Staff Costs	6	181,401	169,732
Depreciation	8	29,668	26,929
Other Operating Expenses	8	100,101	94,737
Interest Payable	7	<u>2,377</u>	<u>2,630</u>
Total Expenditure	8	<u>313,547</u>	<u>294,028</u>
Operating Surplus		20,866	15,747
Exceptional Items	9	<u>2,118</u>	<u>–</u>
Surplus for the year before taxation		22,984	15,747
Corporation Tax	10	<u>7</u>	<u>(124)</u>
Surplus for the Year after Taxation		22,991	15,623
Minority Interest		<u>(74)</u>	<u>(94)</u>
Retained Surplus for the Year		<u>22,917</u>	<u>15,529</u>
There were no discontinued operations during 2003/4 or 2004/5.			
Note of Historical Cost Surpluses and Deficits			
Surplus for the year		22,917	15,529
Difference between Historical Cost Depreciation and the actual charge based on the revalued amount.		<u>688</u>	<u>755</u>
Historical Cost Surplus		<u>23,605</u>	<u>16,284</u>

Balance Sheets

For the year ended 31 July 2005

		University		Consolidated	
	Note	2005	2004	2005	2004
			As re-stated (Note 22)		As re-stated (Note 22)
		£000	£000	£000	£000
Fixed Assets					
Tangible Assets	11	432,871	411,506	460,649	440,811
Investments	12	10,304	9,181	9,948	8,825
		443,175	420,687	470,597	449,636
Endowment Asset Investments	13	67,804	59,911	67,804	59,911
Current Assets					
Stocks and stores in hand		600	501	715	598
Debtors and prepayments	14	57,074	59,715	50,323	52,157
Investments		23,104	15,094	23,104	15,094
Cash at bank and in hand		165	821	1,348	2,760
		80,943	76,131	75,490	70,609
Creditors:					
Amounts falling due within one year	15	(68,748)	(56,916)	(70,308)	(58,792)
Net Current Assets		12,195	19,215	5,182	11,817
Total Assets less Current Liabilities		523,174	499,813	543,583	521,364
Creditors:					
Amounts falling due after more than one year	16	(2,141)	(29,390)	(1,379)	(29,390)
Provisions for Liabilities and Charges	17	(253)	(717)	(1,932)	(2,434)
Total Net Assets		520,780	469,706	540,272	489,540

Balance Sheets (continued)

For the year ended 31 July 2005

	Note	University		Consolidated	
		2005	2004	2005	2004
		As re-stated (Note 22)	As re-stated (Note 22)	As re-stated (Note 22)	As re-stated (Note 22)
		£000	£000	£000	£000
Represented by:					
Deferred Capital Grants	18	90,670	71,917	91,533	72,819
Endowments					
Specific	19	59,611	52,758	59,611	52,758
General	19	8,193	7,153	8,193	7,153
		<u>67,804</u>	<u>59,911</u>	<u>67,804</u>	<u>59,911</u>
Reserves					
Revaluation Reserve	20	49,566	49,131	50,039	49,604
Income and Expenditure Account	21	312,740	288,747	328,842	305,226
Minority Interest		—	—	2,054	1,980
		<u>362,306</u>	<u>337,878</u>	<u>380,935</u>	<u>356,810</u>
Total Funds		<u>520,780</u>	<u>469,706</u>	<u>540,272</u>	<u>489,540</u>

The financial statements on pages 50 to 74 were approved by the Council on 15 December 2005 and signed on its behalf by:

Professor Michael Sterling, Vice-Chancellor and Principal

W J Glover, Treasurer

Consolidated Cash Flow Statement

For the year ended 31 July 2005

	<i>Note</i>	2004/5	2003/4
		As re-stated (Note 22)	
		£000	£000
Net Cash Inflow from Operating Activities	26	37,529	29,018
Returns on Investments and Servicing of Finance	27	1,486	459
Taxation		(51)	(46)
Capital Expenditure and Financial Investment	28	(1,407)	(39,436)
Net Cash Inflow / (Outflow) before Financing		37,557	(10,005)
Financing	29	(30,869)	(3,419)
Increase / (Decrease) in Cash in the year	30	6,688	(13,424)
Reconciliation of Net Cash Flow to Movement in Net Funds			
Increase / (Decrease) in Cash in the year		6,688	(13,424)
Arising on Consolidation of Subsidiary Undertakings		–	(11)
New Leases/Loans	29	(4)	(367)
Repayment of Debt	29	30,873	3,786
Increase / (Decrease) in Net Funds		37,557	(10,016)
Net Funds at 1 August 2004		(11,942)	(1,926)
Net Funds at 31 July 2005	30	25,615	(11,942)

Consolidated Statement of Recognised Gains and Losses

For the year ended 31 July 2005

	<i>Note</i>	2004/5 £000	2003/4 As re-stated (Note 22) £000
Surplus after Depreciation of Assets		22,917	15,529
Revaluation of Endowment Asset Investments	19	7,506	1,509
Revaluation of Fixed Asset Investments	20	1,123	235
Endowment Income Transfer from Accumulated Reserve	19	(54)	–
New Endowments	19	452	872
Total Recognised Gains Relating to the Year		<u>31,944</u>	<u>18,145</u>

Reconciliation

Opening Reserves and Endowments	414,741	396,596
Total recognised gains for the year	31,944	18,145
Closing Reserves and Endowments	<u>446,685</u>	<u>414,741</u>

Notes to the Accounts

For the year ended 31 July 2005

	2004/5 £000	2003/4 £000
1. Funding Council Grants		
Recurrent Grant from HEFCE	97,791	90,878
Specific Grants from HEFCE	8,688	8,289
Recurrent Grant from Teacher Training Agency	2,193	2,290
Specific Grants from Teacher Training Agency	139	133
Deferred Capital Grants Released in Year: Equipment and Buildings	5,402	3,610
	<u>114,213</u>	<u>105,200</u>

2. Academic Fees and Support Grants

Full-time students	25,937	24,392
Full-time students charged overseas and other fees	19,295	18,776
Part-time Courses – credit bearing	17,155	15,915
– non credit bearing	2,916	3,172
Research, Training and Support Grants	<u>867</u>	<u>926</u>
	<u>66,170</u>	<u>63,181</u>

3. Research Grants and Contracts

Office of Science and Technology Research Councils	24,043	23,590
UK-Based Charities	19,639	18,032
UK Central/Local Government, Health and Hospital Authorities	17,819	15,383
UK Industry, Commerce and Public Corporations	6,281	7,160
EU Government Bodies	3,625	3,330
EU Other	404	645
Other Overseas	1,019	1,160
Other Sources	<u>779</u>	<u>901</u>
	<u>73,609</u>	<u>70,201</u>

Income from research grants and contracts includes £5,802k (2003/4 £6,774k) in respect of deferred capital grants released.

Notes to the Accounts (continued)

For the year ended 31 July 2005

	2004/5 £000	2003/4 As re-stated £000
4. Other Operating Income		
Residences, Catering and Conferences	25,623	21,657
Other Services Rendered	17,092	17,004
Externally Funded Posts – Health Authorities	11,940	9,802
– Other Sources	988	1,597
Self-Financing Teaching Activities	4,790	4,438
Rented Properties and University Centre Lettings	1,078	1,004
Day Nursery	1,056	832
Release of Deferred Capital Grants	1,484	1,001
Barber Trust	938	767
VAT Refund	2,186	–
Other Income	9,383	10,002
	<u>76,558</u>	<u>68,104</u>
5. Endowment Income and Interest Receivable		
Transferred from Specific Endowments (Note 19)	1,743	1,740
Income from General Endowment Asset Investments (Note 19)	290	290
Income from Short Term Investments	1,506	1,027
Other Investment Income	324	32
	<u>3,863</u>	<u>3,089</u>
6. Staff		
Staff Costs:		
Wages and Salaries	150,779	141,357
Social Security Costs	12,642	11,891
Other Pension Costs (Note 31)	17,980	16,484
	<u>181,401</u>	<u>169,732</u>
Emoluments of the Vice-Chancellor:		
Salary and benefits	235	223
Pension contributions to USS	88	31
	<u>323</u>	<u>254</u>

The emoluments shown are in respect of Professor Michael Sterling and have been independently determined by the lay officers of the Council and reviewed according to performance. The increase in pension contributions is in line with the Council's succession planning decisions.

Notes to the Accounts (continued)

For the year ended 31 July 2005

	2004/5 Number	2003/4 Number
6. Staff – continued		
Average staff numbers by major category:		
Academic and related/clinical	2,969	2,903
Other, including technical, clerical and manual	2,727	2,778
	<u>5,696</u>	<u>5,681</u>

Remuneration of other higher paid staff, excluding employer's pension contributions but including payments made on behalf of the NHS in respect of its contractual obligations to University staff under separate NHS contracts of employment and which are included in the University's Income and Expenditure Account:

£70,001 – £80,000	60	48
£80,001 – £90,000	24	33
£90,001 – £100,000	20	9
£100,001 – £110,000	16	17
£110,001 – £120,000	7	7
£120,001 – £130,000	10	12
£130,001 – £140,000	7	3
£140,001 – £150,000	7	10
£150,001 – £160,000	1	0
£180,001 – £190,000	1	0
£220,001 – £230,000	0	1
£230,001 – £240,000	1	1

7. Interest Payable

	2004/5 £000	2003/4 £000
Finance Leases	1,786	1,404
Bank Loans	591	1,226
	<u>2,377</u>	<u>2,630</u>

Notes to the Accounts (continued)

For the year ended 31 July 2005

8. Analysis of 2004/5 Expenditure by Activity

	Staff Costs	Depreciation	Other Operating Expenses	Interest Payable	Total 2004/5	Total 2003/4
	£000	£000	£000	£000	£000	£000
Academic Schools						
Core Teaching and Research	95,450	5,423	24,822	–	125,695	115,704
Research Grants and Contracts	36,750	5,802	17,818	–	60,370	58,997
Other Trading	3,524	93	5,906	–	9,523	9,833
	<u>135,724</u>	<u>11,318</u>	<u>48,546</u>	<u>–</u>	<u>195,588</u>	<u>184,534</u>
Academic Services						
Information Services	9,255	3,415	7,068	–	19,738	19,823
Other academic services	1,811	86	833	–	2,730	3,214
	<u>11,066</u>	<u>3,501</u>	<u>7,901</u>	<u>–</u>	<u>22,468</u>	<u>23,037</u>
General Educational Expenditure						
Student Scholarships, Bursaries, Recruitment and Liaison	2,424	62	4,093	–	6,579	5,918
Premises						
Energy	525	730	4,552	–	5,807	4,558
Repairs and General Maintenance	2,363	70	1,807	–	4,240	6,248
Depreciation of Buildings	–	9,203	–	–	9,203	7,323
Other	<u>5,546</u>	<u>344</u>	<u>2,479</u>	<u>21</u>	<u>8,390</u>	<u>8,273</u>
	<u>8,434</u>	<u>10,347</u>	<u>8,838</u>	<u>21</u>	<u>27,640</u>	<u>26,402</u>
Administration and Services						
Administrative Services	10,716	52	5,130	–	15,898	12,419
Audit Fees	–	–	45	–	45	45
Fees to Auditor for Non-Audit Work	–	–	48	–	48	2
Sports Facilities	1,278	323	1,550	–	3,151	2,764
Health, Nursery and Counselling Services	1,776	–	697	–	2,473	2,134
Grant to Guild of Students	<u>–</u>	<u>–</u>	<u>1,241</u>	<u>–</u>	<u>1,241</u>	<u>1,199</u>
	<u>13,770</u>	<u>375</u>	<u>8,711</u>	<u>–</u>	<u>22,856</u>	<u>18,563</u>
Residences Catering and Conferences						
Residences	2,292	190	5,808	2,356	10,646	11,898
Catering and Conferences	4,026	125	5,409	–	9,560	7,508
Depreciation of Buildings	<u>–</u>	<u>2,807</u>	<u>–</u>	<u>–</u>	<u>2,807</u>	<u>1,706</u>
	<u>6,318</u>	<u>3,122</u>	<u>11,217</u>	<u>2,356</u>	<u>23,013</u>	<u>21,112</u>
Other Expenditure						
Other Services Rendered	3,546	906	8,583	–	13,035	12,681
Other	<u>119</u>	<u>37</u>	<u>2,212</u>	<u>–</u>	<u>2,368</u>	<u>1,781</u>
	<u>3,665</u>	<u>943</u>	<u>10,795</u>	<u>–</u>	<u>15,403</u>	<u>14,462</u>
TOTAL	<u>181,401</u>	<u>29,668</u>	<u>100,101</u>	<u>2,377</u>	<u>313,547</u>	<u>294,028</u>

The depreciation charge has been funded by:

Deferred Capital Grants Released (Note 18)	12,339
General Income	17,329
	<u>29,668</u>

Notes to the Accounts (continued)

For the year ended 31 July 2005

9. Exceptional Items	2004/5	2003/4
	£000	£000
Profit on sale of surplus land and buildings	<u>2,118</u>	<u>–</u>
10. Tax on Profit on Ordinary Activities	2004/5	2003/4
	£000	£000
United Kingdom corporation tax at 30% on subsidiary company profits:		
Current Year	(31)	(52)
Deferred tax – due to timing differences in a subsidiary company	38	(72)
Total repayable / (payable)	<u>7</u>	<u>(124)</u>

11. Tangible Fixed Assets

University	Assets in the course of Construction	Land and Buildings	Equipment	University Total
				2004/5
	£000	£000	£000	£000
Cost or Valuation				
Valuation	–	51,119	–	51,119
Cost	18,522	364,798	44,081	427,401
As at 1 August 2004	<u>18,522</u>	<u>415,917</u>	<u>44,081</u>	<u>478,520</u>
Transfers at Cost	(16,867)	16,867	–	–
Additions/Disposals				
Additions at Cost	18,288	19,605	13,691	51,584
Disposals at Cost	–	(1,540)	(13,173)	(14,713)
As at 31 July 2005:				
Valuation	–	51,119	–	51,119
Cost	19,943	399,730	44,599	464,272
	<u>19,943</u>	<u>450,849</u>	<u>44,599</u>	<u>515,391</u>
Accumulated Depreciation				
As at 1 August 2004 – Valuation	–	4,009	–	4,009
As at 1 August 2004 – Cost	–	33,160	29,845	63,005
Charge for the Year – Valuation	–	688	–	688
Charge for the Year – Cost	–	13,488	14,535	28,023
Depreciation on Disposals – Cost	–	(32)	(13,173)	(13,205)
As at 31 July 2005:	<u>–</u>	<u>51,313</u>	<u>31,207</u>	<u>82,520</u>
Net Book Value				
Valuation	–	46,422	–	46,422
Cost	19,943	353,114	13,392	386,449
Net Book Value as at 31 July 2005	<u>19,943</u>	<u>399,536</u>	<u>13,392</u>	<u>432,871</u>
Net Book Value as at 31 July 2004	<u>18,522</u>	<u>378,748</u>	<u>14,236</u>	<u>411,506</u>

Notes to the Accounts (continued)

For the year ended 31 July 2005

11. Tangible Fixed Assets continued

Consolidated	Assets in the course of Construction	Land and Buildings	Equipment	Consolidated Total 2004/5
	£000	£000	£000	£000
Cost or Valuation				
Valuation	–	51,593	–	51,593
Cost	18,522	399,435	44,451	462,408
As at 1 August 2004	<u>18,522</u>	<u>451,028</u>	<u>44,451</u>	<u>514,001</u>
Transfers at Cost	(16,867)	16,867	–	–
Additions/Disposals				
Additions at Cost	18,405	18,904	13,705	51,014
Disposals at Cost	–	(1,540)	(13,207)	(14,747)
As at 31 July 2005:				
Valuation	–	51,593	–	51,593
Cost	<u>20,060</u>	<u>433,666</u>	<u>44,949</u>	<u>498,675</u>
	<u>20,060</u>	<u>485,259</u>	<u>44,949</u>	<u>550,268</u>
Accumulated Depreciation				
As at 1 August 2004 – Valuation	–	4,009	–	4,009
As at 1 August 2004 – Cost	–	39,081	30,100	69,181
Charge for the Year – Valuation	–	688	–	688
Charge for the Year – Cost	–	14,395	14,585	28,980
Depreciation on Disposals – Cost	–	(32)	(13,207)	(13,239)
As at 31 July 2005	<u>–</u>	<u>58,141</u>	<u>31,478</u>	<u>89,619</u>
Net Book Value				
Valuation	–	46,896	–	46,896
Cost	<u>20,060</u>	<u>380,222</u>	<u>13,471</u>	<u>413,753</u>
Net Book Value as at 31 July 2005	<u>20,060</u>	<u>427,118</u>	<u>13,471</u>	<u>460,649</u>
Net Book Value as at 31 July 2004	<u>18,522</u>	<u>407,938</u>	<u>14,351</u>	<u>440,811</u>

Notes to the Accounts (continued)

For the year ended 31 July 2005

The accumulated cost of Assets in the Course of Construction includes:

	£000
Sport and Exercise Sciences	9,652
Medical School Improvements	9,368
Mason Hall	923
Other	117
	<u>20,060</u>

The reinstatement cost of buildings for insurance purposes is £1,147m (2004 £1,142m).

The net book value of the land and buildings represents freehold interests except for £23.6m (2004 £37.1m) of interest in long leasehold land and buildings.

The net book value of land and buildings includes an amount of £Nil (2004 £20.7m) in respect of assets held under finance leases.

Fully depreciated equipment is written out after 3 years and shown as a disposal and a depreciation adjustment.

	University		Consolidated	
	2005	2004	2005	2004
	£000	£000	£000	£000

12. Fixed Asset Investments

Non-endowment investments

Balance at 1 August	9,181	8,945	8,825	8,596
Appreciation on Disposals/Revaluation	<u>1,123</u>	<u>236</u>	<u>1,123</u>	<u>229</u>
Balance at 31 July	<u><u>10,304</u></u>	<u><u>9,181</u></u>	<u><u>9,948</u></u>	<u><u>8,825</u></u>

The investments consist of a managed portfolio of properties, equities and fixed interest securities, and subsidiary company shares as listed in note 34.

13. Endowment Asset Investments

University and Consolidated

	2005	2004
	£000	£000
Balance at 1 August	59,911	57,210
Additions	387	1,192
Appreciation on Disposals/Revaluation	7,506	1,509
Balance at 31 July	<u><u>67,804</u></u>	<u><u>59,911</u></u>
Represented by:		
Investments	64,808	57,005
Cash	2,996	2,906
	<u><u>67,804</u></u>	<u><u>59,911</u></u>

Notes to the Accounts (continued)

For the year ended 31 July 2005

14. Debtors

	University		Consolidated	
	2005	2004	2005	2004
	£000	£000	£000	£000
Amounts falling due within one year:				
Research Grants and Contracts	19,448	16,697	19,448	16,697
Other Debtors and Prepayments	19,922	19,399	19,804	19,091
Amounts due from Sale of Property	–	6,025	–	6,025
Birmingham Pension and Assurance Scheme				
SSAP 24 Prepayment	916	813	916	813
Alta Estates Ltd	533	533	–	–
Birmingham Research Park Ltd	84	90	–	–
	<u>40,903</u>	<u>43,557</u>	<u>40,168</u>	<u>42,626</u>

Amounts falling due after one year:

Birmingham Pension and Assurance Scheme				
SSAP 24 Prepayment	10,155	9,524	10,155	9,524
Alta Estates Ltd	5,734	6,267	–	–
Birmingham Research Park Ltd	282	360	–	–
Loans to the Guild of Students and Junior Common Rooms	–	7	–	7
	<u>16,171</u>	<u>16,158</u>	<u>10,155</u>	<u>9,531</u>
	<u>57,074</u>	<u>59,715</u>	<u>50,323</u>	<u>52,157</u>

15. Creditors: Amounts Falling due within one year

	University		Consolidated	
	2005	2004	2005	2004
	£000	Re-stated £000	£000	Re-stated £000
Obligations Under Finance Leases (Note 23)	–	1,508	–	1,508
Loans and Bank Overdrafts	344	1,437	454	1,804
Research Grants and Contracts in Advance	18,438	15,411	18,438	15,411
Corporation Tax	–	–	25	51
Social Security and Other Taxation Payable	4,658	3,952	4,706	4,022
Other Creditors	<u>45,308</u>	<u>34,608</u>	<u>46,685</u>	<u>35,996</u>
	<u>68,748</u>	<u>56,916</u>	<u>70,308</u>	<u>58,792</u>

The other creditors category includes an amount of £162k (2004 £599k) which represents cash held by the University on behalf of the Mercia Fund in respect of University Challenge projects.

16. Creditors: Amounts Falling due after more than one year

	University		Consolidated	
	2005	2004	2005	2004
	£000	£000	£000	£000
Obligations Under Finance Leases (Note 23)	–	9,085	–	9,085
Loan repayable by Instalments, within 5 years	2,141	20,305	1,379	20,305
The loan is repayable in quarterly instalments and incurs interest at 0.5% above Bank of England base rate.	<u>2,141</u>	<u>29,390</u>	<u>1,379</u>	<u>29,390</u>

Notes to the Accounts (continued)

For the year ended 31 July 2005

17. Provisions for Liabilities and Charges

	University		Consolidated	
	2005	2004	2005	2004
	£000	£000	£000	£000
Re-structuring				
At 1 August	717	1,103	717	1,103
Utilised during the year	(532)	(850)	(532)	(850)
Provided in year	68	464	68	464
At 31 July	<u>253</u>	<u>717</u>	<u>253</u>	<u>717</u>
Other				
At 1 August	–	50	–	50
Provided in Year	–	(50)	–	(50)
At 31 July	<u>–</u>	<u>–</u>	<u>–</u>	<u>–</u>
Deferred Taxation				
At 1 August	–	–	1,717	1,646
Provided in year (note 10)	–	–	(38)	71
At 31 July	<u>–</u>	<u>–</u>	<u>1,679</u>	<u>1,717</u>
Total at 31 July 2005	<u>253</u>	<u>717</u>	<u>1,932</u>	<u>2,434</u>
Analysis of Deferred Taxation:				
Accelerated capital allowances	–	–	2,136	2,168
Less unutilised tax losses	–	–	(457)	(451)
At 31 July	<u>–</u>	<u>–</u>	<u>1,679</u>	<u>1,717</u>

18. Deferred Capital Grants

	Consolidated		University
	Other	Funding	Total
	Grants and	Council	Total
	Benefactions		
	£000	£000	£000
At 1 August 2004 – re-stated			
Buildings	17,228	46,325	63,553
Equipment	<u>6,662</u>	<u>2,604</u>	<u>9,266</u>
	<u>23,890</u>	<u>48,929</u>	<u>72,819</u>
Cash Received			
Buildings	2,755	21,042	23,797
Equipment	<u>3,958</u>	<u>3,298</u>	<u>7,256</u>
Released to Income and Expenditure			
Buildings – Depreciation	(599)	(2,770)	(3,369)
Equipment – Depreciation	<u>(6,338)</u>	<u>(2,632)</u>	<u>(8,970)</u>
At 31 July 2005			
Buildings	19,384	64,597	83,981
Equipment	<u>4,282</u>	<u>3,270</u>	<u>7,552</u>
	<u>23,666</u>	<u>67,867</u>	<u>91,533</u>

Notes to the Accounts (continued)

For the year ended 31 July 2005

19. Endowments

University and Consolidated

	Specific £000	General £000	Total £000
At 1 August 2004	52,758	7,153	59,911
Additions	452	–	452
Appreciation of Endowment Asset Investments	6,466	1,040	7,506
Income for Year	1,689	290	1,979
Transfer to Budget Centre Funds	(11)	–	(11)
Transferred to Income and Expenditure Account (note 5)	(1,743)	(290)	(2,033)
At 31 July 2005	<u>59,611</u>	<u>8,193</u>	<u>67,804</u>

20. Revaluation Reserve

Consolidated

University

	Land and Buildings £000	Investments £000	Total £000	Total £000
At 1 August 2004	47,584	2,020	49,604	49,131
Revaluation in the year	–	1,123	1,123	1,123
Released to Income and Expenditure Account	(688)	–	(688)	(688)
As at 31 July 2005	<u>46,896</u>	<u>3,143</u>	<u>50,039</u>	<u>49,566</u>

The revaluation in the year is due to changes in the market values of investments.

21. Income and Expenditure Account

Consolidated University

	Balance 1 August 2004 As re-stated (Note 22)	Additions/ (Reductions) for the year	Revaluation Reserve Release	Other Movements	Balance 31 July 2005	Balance 31 July 2005
	£000	£000	£000	£000	£000	£000
Available						
Academic Budget Centres	12,374	181	–	–	12,555	12,555
Non-Academic Budget Centres	8,663	1,933	–	11	10,607	10,607
Infrastructure Fund	1,288	7,942	–	–	9,230	9,230
Rationalisation Fund	543	218	–	–	761	761
Residences, Catering and Conference Funds	6,992	(1,900)	–	–	5,092	5,092
General Reserve	16,773	3,414	–	–	20,187	20,187
Subsidiary Undertakings	5,033	(377)	–	–	4,656	–
Other Funds	15,191	6,092	–	–	21,283	21,283
Sub-total – Available	<u>66,857</u>	<u>17,503</u>	<u>–</u>	<u>11</u>	<u>84,371</u>	<u>79,715</u>
Committed	<u>238,369</u>	<u>5,414</u>	<u>688</u>	<u>–</u>	<u>244,471</u>	<u>233,025</u>
TOTAL	<u>305,226</u>	<u>22,917</u>	<u>688</u>	<u>11</u>	<u>328,842</u>	<u>312,740</u>

Notes to the Accounts (continued)

For the year ended 31 July 2005

22. Prior Year Adjustment

The University has reviewed its accounting policies during the year in accordance with FRS 18. As a result of this review, the University has decided to change its accounting policy in respect of the recognition of fundraising income in order to adopt the most appropriate accounting policy. Previously, the University recognised all fundraising income on a receivable basis. The University now recognises income on the basis outlined in the Accounting Policies Note (page 50). The effect of this adjustment on the consolidated results is summarised below:

Income and Expenditure Account

	Consolidated 2004/5	PYA impact	As restated 2004/5	Consolidated as previously reported 2003/04	PYA impact	As restated 2003/4
	£000	£000	£000	£000	£000	£000
Retained surplus for the year	23,318	(401)	22,917	16,113	(584)	15,529

Balance Sheet

	Consolidated 2004/5	PYA impact	As restated 2004/5	Consolidated as previously reported 2003/04	PYA impact	As restated 2003/4
	£000	£000	£000	£000	£000	£000
Creditors (deferred income)	70,750	(442)	70,308	58,108	684	58,792
Net Assets	<u>540,714</u>	<u>(442)</u>	<u>540,272</u>	<u>490,224</u>	<u>(684)</u>	<u>489,540</u>
Deferred capital grants	90,645	888	91,533	72,109	710	72,819
I & E account	330,172	(1,330)	328,842	306,620	(1,394)	305,226
Total Funds	<u>540,714</u>	<u>(442)</u>	<u>540,272</u>	<u>490,224</u>	<u>(684)</u>	<u>489,540</u>

23. Lease Obligations

	University and Consolidated	
	2005 £000	2004 £000
Obligations under finance leases fall due as follows:		
Between two and five years	–	6,730
Over five years	–	<u>2,355</u>
Total over one year (Note 16)	–	9,085
Within one year (Note 15)	–	<u>1,508</u>
	–	<u><u>10,593</u></u>

24. Capital Commitments

	University and Consolidated	
	2005 £000	2004 £000
Contracts for capital expenditure	25,223	24,062

Committed expenditure includes: Medical School improvements (£6.9m), Engineering refurbishment (£2.2m), New Sports Science building (£6.8m) and Residence refurbishment (£1.5m).

Notes to the Accounts (continued)

For the year ended 31 July 2005

25. Contingent Liability

The University is a member of UMA (Special Risks) Ltd., a company limited by guarantee formed to provide a mutual association for terrorism risks. If the association suffers a shortfall in any underwriting year, the members are liable for their pro rata share. The scheme's ability to pay claims is derived from one of the following sources:

- (a) accumulated reserves of £10 million;
- (b) a £15 million internal loan facility from member institutions, of which the University has provided a facility of £2 million;
- (c) a £350 million aggregate layer of excess cover obtained through the Lloyds insurance market and off-shore insurers, structured to provide cover for up to two maximum losses of £175 million each. Losses exceeding £175 million may result in a supplementary call for funding from the 107 members of the association.

26. Reconciliation of Operating Surplus to Net Cash from Operating Activities

	Consolidated	
	2004/5	2003/4
		As restated
		(Note 22)
	£000	£000
Surplus for the year before taxation	22,984	15,747
Depreciation of fixed assets (Note 11)	29,668	26,929
Deferred capital grants released to income (Note 18)	(12,339)	(11,422)
Investment income	(1,486)	(459)
Increase in stocks	(117)	(17)
Increase in debtors	(5,651)	(760)
Increase / (Decrease) in creditors	7,106	(571)
Decrease in provisions	(464)	(436)
Profit from sale of tangible fixed asset	(2,118)	–
Depreciation of investments	–	7
Other	(54)	–
Net Cash Inflow from Operating Activities	<u>37,529</u>	<u>29,018</u>

27. Returns on Investments and Servicing of Finance

	Consolidated	
	2004/5	2003/4
	£000	£000
Income from fixed asset investments	324	32
Income from endowments	2,033	2,030
Income from short term investments	1,506	1,027
Interest Paid	(2,377)	(2,630)
	<u>1,486</u>	<u>459</u>

Notes to the Accounts (continued)

For the year ended 31 July 2005

28. Capital Expenditure and Financial Investment

Consolidated

2004/5 2003/4
As restated
(Note 22)
£000 £000

Tangible assets acquired	(43,726)	(59,135)
Endowment asset investments acquired	(297)	(926)
Total fixed and endowment assets acquired	(44,023)	(60,061)
Receipts from sales of tangible assets	9,651	308
Deferred capital grants received	32,513	19,445
Endowments received	452	872
	<u>(1,407)</u>	<u>(39,436)</u>

29. Analysis of Changes in External Financing During the Year

Consolidated

2004/5 2003/4
£000 £000

Balance at 1 August	32,702	36,121
New Leases/Loans	4	367
Capital repayments	(30,873)	(3,786)
Net Amount Acquired in Year	(30,869)	(3,419)
Balance at 31 July	<u>1,833</u>	<u>32,702</u>

30. Analysis of Changes in Net Funds

Consolidated

At Cash At
1 August Flows 31 July
2004 2005
£000 £000 £000

Short term deposits repayable on demand	15,094	8,010	23,104
Endowment asset investments	2,906	90	2,996
Cash in hand, and at bank	<u>2,760</u>	<u>(1,412)</u>	<u>1,348</u>
	20,760	6,688	27,448
Debt due within one year	(3,312)	2,858	(454)
Debt due after one year	<u>(29,390)</u>	<u>28,011</u>	<u>(1,379)</u>
	<u>(11,942)</u>	<u>37,557</u>	<u>25,615</u>

Notes to the Accounts (continued)

For the year ended 31 July 2005

31. Pension Schemes

Pension arrangements are funded by employee and employer contributions to pension schemes that are financially separate from the University. Staff paid on academic and academically-related scales who are eligible, acquire pension rights through the Universities Superannuation Scheme (USS), which is a national scheme administered by a separate company on behalf of all universities. Some staff contribute to private schemes. Staff on other salary scales may be covered by the University of Birmingham Pension and Assurance Scheme (BPAS), administered in-house by a Trustee Group comprising four employer nominated and four employee nominated Trustees with an independent Chair. Management of the Scheme's investments is undertaken by UBS Global Asset Management Ltd.

Both schemes provide benefits based on final pensionable salary and the pension cost is assessed using the projected unit method for USS and a modified aggregate funding method for BPAS.

The total pension cost for each Scheme for the University is as follows:

	2004/5 £000	2003/4 £000
Contributions to USS	12,332	11,126
Contributions to BPAS	3,913	4,166
Contributions to Other Pension Schemes	<u>1,735</u>	<u>1,192</u>
Total Pension Costs (Note 6)	<u>17,980</u>	<u>16,484</u>

Universities Superannuation Scheme (USS)

USS is contracted out of the State Earnings-Related Pension Scheme and the assets of the scheme are held in a separate trustee-administered fund. The cost recognised in the income and expenditure account is equal to the contributions payable to the scheme during the year.

The latest actuarial valuation of the scheme was at 31st March, 2002. The assumptions which have the most significant effect on the result of the valuation are those relating to the rate of return on investments, (ie. the valuation rate of interest), and the rates of increase in salary and pensions. In relation to the past service liability the financial assumptions were derived from market yields prevailing at the valuation date, it was assumed that the valuation rate of interest would be 5.0% per annum, salary increases would be 3.7% per annum and pensions would increase by 2.7% per annum. In relation to future service liabilities it was assumed that the valuation rate of interest would be 6.0% per annum, including an additional investment return assumption of 1% per annum, salary increases would be 3.7% per annum and pensions would increase by 2.7% per annum. The valuation was carried out using the projected unit method.

At the valuation date, the market value of the assets of the scheme was £19,938 million, and the valuation of the past service liabilities was £19,776 million, giving a surplus of £162 million. The assets therefore were sufficient to cover 101% of the benefits which had accrued to members, after allowing for expected future increases in earnings.

The contribution rate payable by the University was 14% of pensionable salaries. The contribution rate required for future service benefits at the date of the valuation was 14.25%, but it was agreed to maintain the rate at 14% of salaries. To fund this reduction of 0.25% for 12 years from the valuation date, (the average outstanding working lifetime of the current members), required the use of £82.5 million of the surplus. This left a past service surplus of £79.5 million (including the Supplementary Section) to be carried forward.

Surpluses or deficits which arise at future valuations may impact on the University's future contribution commitment. The result of the next formal actuarial valuation is due on 1 December 2005, when the above rates will be reviewed.

FRS 17

The USS is a multi-employer scheme. It is not possible to identify each institution's share of the underlying assets and liabilities of the scheme and hence contributions to the scheme are accounted for as if it were a defined contribution scheme as permitted by FRS 17.

Notes to the Accounts (continued)

For the year ended 31 July 2005

31. Pension Schemes continued

University of Birmingham Pension and Assurance Scheme (BPAS)

BPAS is contracted out of the State Earnings-Related Pension Scheme and management of the Scheme's investments is undertaken by UBS Global Asset Management Ltd. The latest full actuarial valuation of the scheme was at 31 March 2002, and the valuation identified that additional contributions were required as determined by the Pensions Act (1995) Minimum Funding Requirement Regulations. The assumptions which have the most significant effect on the result of the valuation are those relating to the rate of return on investments, (ie, the valuation rate of interest) and the rates of increase in salary and pensions. In relation to the past service liability the financial assumptions were derived from market yields prevailing at the valuation date, it was assumed that the valuation rate of interest would be 5.6% per annum, salary increases would be 4.0% per annum and pensions would increase by 2.5% per annum. In relation to future service liabilities it was assumed that the valuation rate of interest would be 5.6% per annum, salary increases would be 4.0% per annum and pensions would increase by 2.5% per annum. The valuation was carried out using the modified aggregate method.

At the valuation date, the market value of the assets of the scheme was £133 million, and the valuation of the past service liabilities was £151.3 million, giving a deficit of £18.3 million. The assets therefore were sufficient to cover 88% of the benefits which had accrued to members, after allowing for expected future increases in earnings. A valuation is under review at present and will be released in December 2005.

Contributions have been paid by employees at the rate of 6% of pensionable pay and by the University at the rate of 14% of employees' pensionable pay. Additionally a further £1.65 million was paid in the period ended 31st July, 2005, as determined by the Schedule of Contributions agreed with the Scheme Actuary.

The assumptions employed by the Scheme Actuary for the valuation of liabilities as at 31st July, 2005, were as follows:

	July 2005	July 2004	July 2003
Discount Rate	5.0%	5.7%	5.5%
Salary Growth	4.2%	4.5%	4.1%
Inflation	2.7%	3.0%	2.6%
Pension Increases	2.7%	3.0%	2.6%

The invested assets of the Scheme amounted to £173.6 million (after investment of the additional contribution).

The assets and the expected long term rate of return were:

	July 2005		July 2004		July 2003	
	£million	Rate of Return	£million	Rate of Return	£million	Rate of Return
Equities	81.5	7.4%	75.0	8.1%	59.7	8.1%
Property	15.5	6.2%	—	—	—	—
Fixed Interest Bonds	56.0	5.0%	47.7	5.7%	49.4	5.5%
Index Linked Gilts	12.7	4.3%	20.3	5.0%	24.6	4.7%
Cash	7.9	3.7%	1.7	4.0%	2.1	4.0%
Total	<u>173.6</u>		<u>144.7</u>		<u>135.8</u>	

The following amounts were measured in accordance with the requirements of Financial Reporting Standard 17:

	July 2005 £million	July 2004 £million	July 2003 £million
Total market value of assets	173.6	144.7	135.8
Present value of scheme liabilities	227.3	184.9	169.6
Deficit in the scheme	<u>53.7</u>	<u>40.2</u>	<u>33.8</u>

If the above amounts had been recognised in the financial statements, the University's net assets and profit and loss reserve at 31 July 2005 would be as follows:

	July 2005 £million	July 2004 £million	July 2003 £million
Net assets excluding pension deficit	529.2	479.9	453.9
Pension deficit	(53.7)	(40.2)	(33.8)
Net assets including pension deficit	<u>475.6</u>	<u>439.7</u>	<u>420.1</u>
Profit and loss reserve excluding pension deficit	317.8	296.3	280.5
Pension deficit	(53.7)	(40.2)	(33.8)
Profit and loss reserve including pension deficit	<u>264.2</u>	<u>256.1</u>	<u>246.7</u>

Notes to the Accounts (continued)

For the year ended 31 July 2005

31. Pension Schemes continued

Additionally, if the pension costs had been recognised in accordance with Financial Reporting Standard 17, the following components of the pensions charge would have been recognised in the income and expenditure account and statement of recognised gains and losses for the year ended 31 July 2005:

	July 2005 £million	July 2004 £million
Analysis of amounts charged to Income and Expenditure account:		
Current service cost	5.0	4.3
Finance:		
Interest on pension scheme liabilities	10.4	9.2
Expected return on assets in the pension scheme	(9.9)	(8.9)
Net charge (credit) to other finance income	0.5	0.3
Total charge before tax	5.5	4.6
Analysis of amounts recognised in Statement of Total Recognised Gains and Losses:		
(Gain) loss on assets	(17.4)	3.8
Experience loss (gain) on scheme liabilities	0.9	(1.2)
Loss on change of assumptions	29.9	6.7
Total loss before tax	13.4	9.3

In total, the movement in the University's share of the scheme's deficit during the year is made up as follows:

	£million
Deficit on scheme at 1 August 2004	40.2
Movements in the year:	
– current service cost	5.0
– contributions paid	(5.4)
– finance income	0.5
– actuarial loss (gain)	13.4
Deficit on scheme at 31 July 2005	53.7

The experience gains and losses for the year were as follows:

	2004/5		2003/4	
	£million	%	£million	%
(Gain) loss on assets	(17.4)		3.8	
Percentage of scheme assets at the end of the year		(10.0%)		2.6%
Experience loss (gain) on scheme liabilities	0.9		(1.2)	
Percentage of scheme liabilities at the end of the year		0.4%		(0.6%)
Total loss recognised in the statement of total recognised gains and losses:	13.4		9.3	
Percentage of scheme liabilities at the end of the year		5.9%		5.0%

Notes to the Accounts (continued)

For the year ended 31 July 2005

32. Agency Arrangements

	University and Consolidated			
	Hardship Funds		Bursaries	
	2004/5	2003/4	2004/5	2003/4
	£000	£000	£000	£000
Balances Unspent as at 1 August	327	156	83	94
Funding Council Grants Received	1,021	1,049	2,278	2,219
Disbursed to Students	(954)	(851)	(2,258)	(2,230)
Administration costs	(30)	(27)	–	–
Balances Unspent at 31 July	<u>364</u>	<u>327</u>	<u>103</u>	<u>83</u>

Funding Council grants and bursaries are available solely for students: the University acts only as paying agent. The grants and related disbursements are therefore excluded from the Income and Expenditure Account.

The University also received £2.0m (2003/4 Nil) from the Funding Council in respect of the Aim Higher initiative, which has been disbursed to colleges in the West Midlands.

33. Related Party Transactions

To capture information on related party transactions the University has circularised members and officers who attend: Council, Strategy, Planning and Resources Committee, Investment Committee, Estates Committee and the Trustees of the University of Birmingham Pension and Assurance Scheme.

Due to the nature of the University's operations and the composition of the University's governing body, being drawn from commerce, industry and the public sector, it is inevitable that transactions will take place with organisations in which a member of the governing body has an interest. All such transactions are conducted at arms length and in accordance with the University's Manual of Financial Rules and Procedures with respect to procurement.

No declarations of disclosable interests have been made.

34. Subsidiary Undertakings

Name	University Holding	Business Activity
Alta Estate Services Limited	100%	Operates a Combined Heat and Power plant
Birmingham Research and Development Limited	100%	Technology Transfer
Birmingham Research Park Limited	51%	Provision of Accommodation to High Technology Companies
Alta Library Services Limited	100%	Provision of Library Services
Entice Technology Limited	57.5%	Software development
University of Birmingham Selly Oak Educational Trust	100%	Management of Land and Buildings on the Selly Oak Campus

The subsidiaries are all incorporated in and operate in Great Britain.

Notes to the Accounts (continued)

For the year ended 31 July 2005

34. Subsidiary Undertakings continued

The summarised balance sheets and results of the subsidiaries for the year ended 31 July 2005 are as follows:

	Alta Estate Services Limited	Birmingham Research and Development Limited	Birmingham Research Park Limited	Alta Library Services Limited	Entice Technology Limited	University of Birmingham Selly Oak Educational Trust
	£000	£000	£000	£000	£000	£000
Tangible Fixed Assets	11,530	58	5,260	–	16	10,915
Investments	–	172	–	–	–	–
Current Assets	<u>934</u>	<u>1,760</u>	<u>413</u>	<u>109</u>	<u>39</u>	<u>10</u>
	<u>12,464</u>	<u>1,990</u>	<u>5,673</u>	<u>109</u>	<u>55</u>	<u>10,925</u>
Capital and Reserves	3,792	323	5,028	–	27	10,915
Creditors	6,993	1,667	645	109	28	10
Bank Loan	–	–	–	–	–	–
Provisions	<u>1,679</u>	<u>–</u>	<u>–</u>	<u>–</u>	<u>–</u>	<u>–</u>
	<u>12,464</u>	<u>1,990</u>	<u>5,673</u>	<u>109</u>	<u>55</u>	<u>10,925</u>
Profit/(Loss) for the Year	<u>(96)</u>	<u>415</u>	<u>125</u>	<u>75</u>	<u>27</u>	<u>(177)</u>

The University has investments in the following companies:

	£000
Cryo Technology Limited	65
Mercia Technology Fund	200
CVCP Properties Limited	64

The University also has an interest in the following companies through its subsidiaries:

University Investment	%
Ad Surf Eng Limited	6
Applied Functional Materials Limited	25
Astron Clinica Limited	10
Birmingham Health Science Devices Limited	50
Celentyx Limited	33
CPD-HQ Limited	33
EXMET Limited	10
Hybrid Systems Limited	25
Hyperspace Limited (Dormant)	100
McBurney Scientific Limited	10
Mermaid Diagnostics Limited (Dormant)	33
Metal Nanopowders Limited	36
Neurogenix Limited	42
Ortus Medical Limited	25
Prolego Technologies Limited	10
Scyron Limited	5

Notes to the Accounts (continued)

For the year ended 31 July 2005

35. Guild of Students

The University has not consolidated the financial statements of the Guild of Students because the University has no control or dominant influence over policy decisions. The summarised balance sheet and results for the year ended 31 July 2005 are as follows:

	2004/5 £000	2003/4 £000
Tangible Fixed Assets	208	188
Investments	5	5
Current Assets	<u>1,612</u>	<u>1,302</u>
	<u>1,825</u>	<u>1,495</u>
Reserves	905	657
Creditors	<u>920</u>	<u>838</u>
	<u>1,825</u>	<u>1,495</u>
Surplus / (deficit) for the Year	<u>248</u>	<u>7</u>

The University's Income and Expenditure Account reflects payment to the Guild of Students of a Block Grant of £1,241k (Note 8) (2003/4 £1,199k).

Five Year Summary Accounts

Income and Expenditure Account

	2000/01	2001/02	2002/03	2003/04	2004/05
	£000	£000	£000	£000	£000
				Re-stated	
Income					
Funding Council Grants	84,018	90,622	95,867	105,200	114,213
Academic Fees and Support Grants	47,302	53,294	59,557	63,181	66,170
Research Grants and Contracts	62,916	68,048	70,673	70,201	73,609
Other Operating Income	57,150	64,406	62,047	68,104	76,558
Endowment Income and Interest	<u>4,054</u>	<u>3,151</u>	<u>3,709</u>	<u>3,089</u>	<u>3,863</u>
Total Income	<u>255,440</u>	<u>279,521</u>	<u>291,853</u>	<u>309,775</u>	<u>334,413</u>
Expenditure					
Staff Costs	150,075	154,316	163,067	169,732	181,401
Depreciation	20,585	22,248	24,669	26,929	29,668
Other Operating Expenses	82,254	93,406	89,050	94,737	100,101
Interest Payable	<u>1,951</u>	<u>2,002</u>	<u>2,941</u>	<u>2,630</u>	<u>2,377</u>
Total Expenditure	<u>254,865</u>	<u>271,972</u>	<u>279,727</u>	<u>294,028</u>	<u>313,547</u>
Operating Surplus before Tax and exceptional items	<u>575</u>	<u>7,549</u>	<u>12,126</u>	<u>15,747</u>	<u>20,866</u>

Balance Sheet

Fixed Assets	361,780	385,449	417,493	449,636	470,597
Endowment Asset Investments	64,500	54,803	57,210	59,911	67,804
Net Current Assets	2,391	22,504	24,668	11,817	5,182
Creditors: Amounts Due After One Year	(14,165)	(36,000)	(33,067)	(29,390)	(1,379)
Provisions for Liabilities and Charges	(1,594)	(3,546)	(2,799)	(2,434)	(1,932)
Total Net Assets	<u>412,912</u>	<u>423,210</u>	<u>463,505</u>	<u>489,540</u>	<u>540,272</u>
Represented By:					
Deferred Capital Grants	27,697	40,162	64,214	72,819	91,533
Endowments	64,500	54,803	57,210	59,911	67,804
Revaluation Reserve	60,698	59,971	50,124	49,604	50,039
Income and Expenditure Reserves:					
Available Funds	46,410	41,884	60,292	66,849	84,371
Committed Funds	<u>213,607</u>	<u>226,390</u>	<u>231,665</u>	<u>240,357</u>	<u>246,525</u>
	<u>260,017</u>	<u>268,274</u>	<u>291,957</u>	<u>307,206</u>	<u>330,896</u>
Total Funds	<u>412,912</u>	<u>423,210</u>	<u>463,505</u>	<u>489,540</u>	<u>540,272</u>

Financial Statistics

Sources of Income

% of Total Income	2000/01	2001/02	2002/03	2003/04	2004/05
	%	%	%	%	%
Grants from Funding Councils (HEFCE and TTA)	32.9	32.4	32.8	33.9	34.2
Tuition Fees – Home and EC	13.4	13.8	14.9	14.4	14.0
Tuition Fees – Overseas	5.1	5.3	5.5	6.0	5.8
Income from Research Grants and Contracts	24.6	24.3	24.2	22.6	22.0
Income from Residences, Catering and Conferences	7.6	7.1	7.3	7.0	7.7
Other Income	16.4	17.1	15.3	16.1	16.3
Total Income	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>

Analysis of Expenditure

% of Total Expenditure	%	%	%	%	%
Staff Costs	58.8	56.8	58.3	57.7	57.9
Depreciation	8.1	8.2	8.8	9.2	9.5
Other Operating Expenses	32.3	34.3	31.8	32.2	31.8
Interest Payable	0.8	0.7	1.1	0.9	0.8
Total Expenditure	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>

Operating surplus for the year as a % of total income	0.2%	2.7%	4.2%	5.3%	6.2%
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Indicators of Financial Strength

Ratio of available general funds to total expenditure (days)	81	66	88	94	108
The number of days expenditure that could be sustained from available funds					
Ratio of long-term liabilities to total net assets	4.1%	8.6%	7.2%	6.3%	0.3%
Measures the extent to which an institution is funded by long term debt					

Indicators of Liquidity and Solvency

Ratio of liquid assets to current liabilities	0.3	0.4	0.5	0.3	0.3
Extent to which current liabilities could be met from cash and liquid investments					
Ratio of current assets to current liabilities	1.1	1.4	1.4	1.2	1.1
Extent to which current liabilities could be met from current assets					
Debtor Days	65	81	78	74	65

Days of total income (excluding Funding Council grants)
represented by debtors (excluding SSAP24 provision)



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